

**MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN  
FEDERATION**

**Lobachevsky State University of Nizhni Novgorod  
National Research University**

J. A. Grinevich  
L.A. Efimova

## **PUBLIC ECONOMICS: BASIC CONCEPTS**

### **Tutorial Manual**

Recommended by the Methodical Commission of the Institute of Economics and  
Entrepreneurship,

Level of Higher Education:

Bachelor

Area of Study:

38.03.01 «Economics»

Program:

World Economy

Nizhny Novgorod  
2018

МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ РОССИЙСКОЙ ФЕДЕРАЦИИ  
Федеральное государственное автономное образовательное учреждение  
высшего образования  
«Национальный исследовательский Нижегородский государственный  
университет им. Н.И. Лобачевского»

**Ю.А. Гриневич**  
**Л.А. Ефимова**

# **ОСНОВЫ ЭКОНОМИКИ ОБЩЕСТВЕННОГО СЕКТОРА**

**38.03.01 «Экономика», квалификация (степень) – бакалавр**  
**Программа «Мировая экономика»**

*УЧЕБНОЕ ПОСОБИЕ*

Рекомендовано методической комиссией Института экономики и предпринимательства  
ННГУ для студентов направления подготовки 38.03.01 «Экономика», квалификация (степень)  
– бакалавр

Нижний Новгород  
2018

УДК 338.23, 336.02  
ББК 65.050  
Г 85

**Гриневич Ю.А., Ефимова Л.А.**

Г 85 Основы экономики общественного сектора: Учебное пособие. - Нижний Новгород: Нижегородский госуниверситет, 2018. - 54 с.

Рецензенты: д.э.н., профессор **А.В.Золотов**

В настоящем учебном пособии излагаются вопросы эволюции институционального подхода к анализу проблем экономики, раскрываются цели и инструменты бюджетной, налоговой и денежно-кредитной политики государства, анализируются основные положения неоклассической и кейнсианской теорий, концепции современного институционализма. Теоретический материал сопровождается примерами из российской и зарубежной практики. После каждой темы приводятся контрольные вопросы и задания, направленные на закрепление изученного материала. Учебное пособие предназначено для студентов бакалавриата ИЭП ННГУ, обучающихся по направлению подготовки 38.03.01 «Экономика».

*Ответственный за выпуск:*  
председатель методической комиссии Института экономики и предпринимательства ННГУ  
к.э.н., доцент **С.В. Едемская**

УДК 338.23, 336.02  
ББК 65.050

© Коллектив авторов  
© **Нижегородский государственный  
университет им. Н.И. Лобачевского, 2018**

## **СОДЕРЖАНИЕ CONTENT**

ПРЕДИСЛОВИЕ	5
INTRODUCTION	7
TOPIC 1. THE INTRODUCTION TO PUBLIC ECONOMICS	9
TOPIC 2. THE ROLE OF THE GOVERNMENT IN THE MODERN ECONOMY	13
TOPIC 3. PUBLIC GOODS	20
TOPIC 4. PUBLIC CHOICE	29
TOPIC 5. PRODUCTION IN PUBLIC SECTOR	39
TOPIC 6. PUBLIC FINANCE	43
TOPIC 7. WELFARE THEORY	48
TOPIC 8. NON-PROFIT ORGANIZATIONS	53
EXAMPLES OF MULTIPLE CHOICE TESTS AND ASSIGNMENTS	56
QUESTIONS FOR FINAL TEST (EXAM)	59
BIBLIOGRAPHY	60

## ПРЕДИСЛОВИЕ

Дисциплина «Экономика общественного сектора» относится к дисциплинам по выбору вариативной части блока Б.1, изучается в 7 семестре по направлению подготовки 38.03.01 «Экономика». Трудоемкость дисциплины составляет 6 зачетных единиц.

Цель освоения дисциплины: ознакомление студентов с комплексом проблем общественного выбора и государственных финансов, составляющих основу экономической деятельности государства на базе инструментального аппарата микроэкономики и макроэкономики.

Процесс изучения дисциплины направлен на формирование следующих компетенций, относящихся к **расчетно-экономической, аналитической, научно-исследовательской, деятельности обучающихся:**

*ПК – 2* - способность на основе типовых методик и действующей нормативно-правовой базы рассчитать экономические и социально-экономические показатели, характеризующие деятельность хозяйствующих субъектов

*ПК – 7* - способность, используя отечественные и зарубежные источники информации, собрать необходимые данные проанализировать их и подготовить информационный обзор и/или аналитический отчет

Планируемыми результатами обучения по дисциплине «**Экономика общественного сектора**» являются:

*ПК – 2* **Знать:**

**З1** основные методики и действующую нормативно-правовую базу, регулирующую отношения в общественном секторе экономики;

**Уметь:**

**У1** использовать источники экономической, социальной и управленческой информации, анализировать данные статистики о социально-экономических процессах и явлениях, выявлять тенденции развития общественного сектора экономики;

**Владеть:**

**В1** основными инструментами оценки показателей эффективности и прозрачности работы общественного сектора экономики;

*ПК – 7* **Знать:**

**З1** методы анализа данных, необходимых для решения поставленных экономических задач в общественном секторе экономики;

**Уметь:**

**У1** применять современные методики реализации и оценки административных решений в общественном секторе экономики;

**Владеть:**

**В1** навыками моделирования разработки аналитических отчетов: прогнозирования состояния внешней среды, выделения управляемых факторов в общественном секторе экономики;

Учебное пособие включает 5 самостоятельных глав, составленных в соответствии с рабочей программой дисциплины.

Материал пособия позволяет сформировать и развить у студентов общие навыки применения базовых понятий применительно к реализации основных принципов государственного регулирования экономики посредством современных методов прогнозирования, планирования, программирования и контроля в современных рыночных условиях волатильной экономики в соответствии формулировкой необходимых знаний применительно к ПК-2 и ПК-7.

## INTRODUCTION

The goals of the course are:

- a comprehensive study of public sector of the economy by using micro and macroeconomics tools;
- to familiarize students with the basic functioning of the public sector, considering its role in the economic system, showing its functions, capabilities, and management methods, attraction of resources, evaluation of the effectiveness of state policy, and the study of mechanisms, on the basis of which the specific tasks of the state policy are formed and interests that the policy reflects.

The course Public Economics is a part of the optional courses. The discipline is taught in the 7<sup>th</sup> semester. The workload of the discipline is 6 ECTS.

The discipline is devoted to the economic aspect of public policy making, tax burden adjustments techniques, market and government failures discussion. The main tasks of discipline are:

- to study the reasons of existence, the place and role of public sector in the modern economy;
- to understand the function and necessity of development of the public sector in economy;
- to study methods and spheres of governing;
- to show the role of federal and local authorities and non-profit organization in production of public goods;
- to familiarize in detail with the basic directions of development of the public sector in economic and social spheres;
- to review in detail the public choice theory and the theory of welfare;
- to inspect of the public incomes and expenditures system;
- to examine the work of the budget and tax systems, the role of the public sector in financing public expenditures, various institutional forms of public sector organizations;
- to understand the role of fiscal federalism;
- to get to know the possibilities of development of health care, education and defense systems.

The following questions are examined: public choice, public goods production, public incomes and expenditures, development of health care, education system, defense, fiscal federalism etc. The discipline shows the role of federal and local authorities and non-profit organization in production of public goods.

### **Student's Competences to be Developed as a Result of the Learning of the Course Material:**

*I/K* – 2 - be able to calculate economic and socio-economic indicators based on standard techniques, taking into account the existing legal framework (PC -2);

*IIIK – 7* - be able to collect the necessary data, to analyze them and to prepare an information overview and/or an analytical report using domestic and foreign sources (PC-7).

**Results of the Learning of the Course Material:**

*IIIK – 2*  
(PC-2) *To be able* to use sources of economic, social and management information, analyze statistical data on socio- economic processes and phenomena, identify trends in the development of the public sector of the economy;

*To know* the main methods and the current legal framework governing relations in the public sector of the economy;

*To have the skills* in implementation of the main tools for assessing the efficiency and transparency of the public sector of the economy;

*To be able* to apply modern methods of implementation and evaluation of administrative decisions in the public sector of the economy

*IIIK – 7*  
(PC-7); *To know* methods of analyzing the data necessary to solve the set economic problems in the public sector of the economy;

*To have the skills* in the development of analytical reports: forecasting the state of the external environment, the allocation of managed factors in the public sector of the economy;



## **TOPIC 1. THE INTRODUCTION TO PUBLIC ECONOMICS**

*Questions for the lectures and the seminars:*

*Public sector: definition, objects and aims. Historical development of public sector. Government role in economy. Governmental bodies and their functions in economy. Functions and structure of public sector in market economy. Theories of the Public Sector. Efficiency and Equity. Public Sector Growth.*

From birth until his death, human's life is connected with the influence of the government. A baby is born in the institution that is either owned or financed by the government. Training in universities is mostly financed by the state. At his birth there are doctors who have received education in public Universities. Most people attend schools that again publicly-funded. Training programs of these schools are created and controlled by the state authorities. The government finances the army, pays unemployment benefits and pensions, etc. Everyone pays taxes to the budget. The government controls the prices of different commodities and provides utilities. State companies produce electricity. The state finances transport (metro, bus) and controls of rail transportation.

Economics of the public sector is a part of economic science, studying laws and practical problems that are associated with the production of public goods; it's an economic mechanism that allows achieving social goals and non-market interests.

The aim of the discipline is to reflect the specific situation of a state among the other economic entities, to show their interference, to reflect the specific functions and features that are inherent in the state, and also to study the mechanisms on the basis of which specific public policy is formed, to show objectives and the interests of this policy.

The object of discipline is the public sector as a special system of institutions, with which the coordinated actions of participants of economic relations are provided.

The discipline shows the formation and use of resources of the government, its impact on the economic situation. Economics of the public sector examines the economic behaviour of the state as one of market economy participants and reflects the economic role of other market sharers.

As shown in Figure 1.1, public sector includes either state and municipal enterprises and institutions or non-commercial organizations.

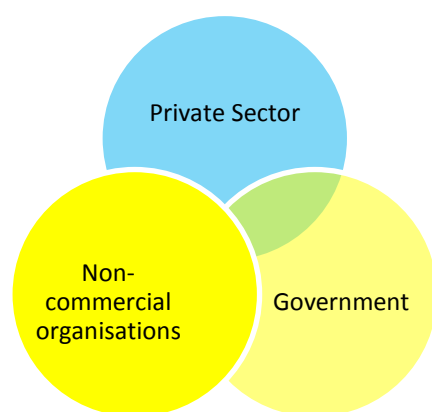


Figure 1.1 Public sector in economy

The scale of the public sector can be defined by the following indicators:

1. The size of the state property, to be more precise, the share of state ownership in the national economy of the country.
2. The share of public revenue and expenditure in GDP.

### ***Trends in public sector development***

The trends in public sector development seen in the XX century are:

1. Throughout the century, there was an increase in the share of public expenditure in GDP.
2. Along with the general increase in the share of government spending in GDP, cyclical fluctuations of this share took place, there was growth during economic downturns and reduction was observed during economic booms.
3. For most countries the tendency of growth of public expenditure was maintained until the late 80-ies.
4. In the last two decades, the ratio of government spending to GDP is more or less stabilized, the upward trend is weak.
5. There are significant differences in the level of public expenditure among developed countries, but these differences do not disappear.
6. Government consumption increased in the twentieth century, but to a lesser extent than government spending.
7. Currently the social security costs constitute the largest share of public expenditure, and their growth significantly outpaces growth in all other areas of spending. This tendency is seen in countries where public social spending traditionally makes up a small share of GDP such as the USA and Japan.

The first of these trends has received the name of the Wagner's law (on behalf of the famous German economist of the late XIX century).

Wagner analyzed data on public sector expenditure for several European countries, Japan, and the US and found out that public sector expenditure had been rising. The Wagner's law is a trend of a more rapid increase in public expenditure compared to GDP growth.

The Baumol's Law is a trend towards a more rapid growth of the prices for services in comparison with growth of prices on manufactured goods.

### ***Role of the Public sector***

Two basic lines of argument can be advanced to justify the role of the public sector. These can be grouped under the headings of efficiency and equity. Efficiency relates to arguments concerning the aggregate level of economic activity whereas equity refers to the distribution of economic benefits.

The most basic motivation for the existence of a public sector follows from the observation that some economic activities could not operate without government intervention. The economy may have widespread inequality of income, opportunity or wealth; in this case the government can solve the problem. It provides education, social security programs and compulsory pension schemes.

When market failure is present, the argument for considering whether intervention would be beneficial is compelling. For example, if economic activity generated externalities (effects that one economic agent imposes on another without their consent), so it may be necessary for the state to intervene to limit the inefficiency that results.

### *Questions and Problems on Topic # 1*

---

1. **(IIK – 2, 31) What does Public Economics examine?**
2. **(IIK – 2, Y1) Main aspects in the debate on government intervention to an economy depend on** different views of government.  
Organic view means \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Mechanistic view means \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.
3. **(IIK – 2, 31) What are the characteristics of the model to justify government intervention?**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.
4. **(IIK – 7, 31) What is an alternative to institutionalized coercion?**  
\_\_\_\_\_

---

---

5. (IIK – 2, 31) Let us recall target functions of market agents.

The target function of a householder is \_\_\_\_\_, the target function of a firm is \_\_\_\_\_.

6. (IIK – 2, 31) What are tools of public economics?

---

---

---

7. (IIK – 2, 31) The scope of the public sector in an economy can be measured:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

## **TOPIC 2. THE ROLE OF THE GOVERNMENT IN THE MODERN ECONOMY**

*Questions for the lectures and the seminars:*

*The essence, functions and economic role of the state. Market failures. Externalities: definition and examples: river pollution, traffic jams etc. Pigouvian taxation. Licenses. Internalization. The Coase Theorem. Asymmetric information: Public provision of Health care and education. Imperfect competition. Monopoly power and monopoly regulation.*

The state is the major institute of the political system of society, organizing, directing and controlling joint activities and relations of people, social groups, classes and associations.

The state is strong public institute, which holds a monopoly on many activities, such as the drafting and adoption of laws, national security etc. Coercion is a vital feature of the state, providing, in particular, public choice, and the production of public goods.

The state has a monopoly on political power, but this monopoly is not absolute, it is significantly limited. These restrictions are connected first of all with the Constitution and existing laws. All branches of state power (legislative, executive and judicial) are limited in their actions. Accountability of state power is also evident. Many state bodies and government representatives attend periodic test and inspection by members of the society through the mechanism of elections.

The main mechanism of allocation and use of scarce resources in a market economy is a market mechanism, where the main forces are competition and prices. However, in all countries with a market economy a significant role in the economy is played by the state. The state redistributes resources, provides the legal base for decision making by economic agents, carries out economic policies, and in some cases organizes production in state-owned enterprises. All above-listed means that the modern market economy is a mixed economy, where there are two main players: market and state.

### ***Market failures***

The removal and compensation of market failures is the most important function of the state in a market economy.

The main disadvantages of market economic mechanism are:

- emergence and development of monopolies and restriction of competition;
- availability of externalities;
- problem of asymmetric information;
- incomplete markets;
- problem of public goods production;
- macroeconomic instability, such as fluctuations in economic activity, unemployment, insufficient production capacity, inflation, budget deficit, the trade deficit;

- unequal distribution of resources and income.

Let us consider some of these failures in more detail.

**1. Development of monopolies.** Competition is the most important condition for the existence of a market economy. Free competition is the most efficient at allocating resources, because it takes into consideration the needs of society. In market economy competition determines what to produce and for whom to produce. But in the course of competitive struggle weak and inefficient producers go out of the market, at the same time strong and the most productive ones remain and expand their production. Gradually, they begin to affect the market gaining market power, and they create monopolies. The appearance and development of monopolies is accompanied by the fact that monopolists affect prices, limit production, in some cases, and prevent the introduction of more advanced technology. Consumers pay higher prices for the produce, their real incomes decline.

The state supports competition; in this case it conducts antimonopoly policy. Many countries adopted the antitrust legislation; there are state bodies for its implementation. In accordance with this law, the government restricts mergers of large manufacturers, and monitors the market share controlled by a large firm. In addition, the government affects prices.

**2. Externalities** are the costs or benefits that accrue to a third party, that is not involved in the market transaction. So, external effects have an impact on the producers or consumers, who are not involved in the process of sale and purchase.

There are the following types of external effects:

- negative externalities;
- positive externalities;
- complementary external effects;
- exhaustible external effects;
- inexhaustible external effects.

***Negative, positive and complementary external effects***

In case of negative external effects a part of the costs shifted on others.

Air pollution by emissions from traffic, pollution of the water by textile factory are examples of negative external effects. In above –mentioned situations:

- human well-being gets worse,
- part of costs passed on to other persons or organizations;
- social costs are not included in the production cost;

- prices for the produced goods become lower;
- volume of production exceeds the optimal level;
- resources are used in an inefficient way (attracted resources are redundant).

Positive externalities occur when outsiders get some profit free of charge.

For example, the water discharged from the plant raises the temperature in the river and thereby contributes to a more rapid growth of fish in it. One more example, if someone makes a preventive vaccination against infectious diseases, the probability of getting disease decreases for him and for the people around him.

In case of positive externalities:

- part of the total usefulness assigns to other persons or organizations free of charge;
- public benefits are not included in the production cost;
- prices for the produced goods become lower;
- volume of production is below the optimal level;
- necessary resources are not drawn;
- resources are used in an inefficient way (there is a lack of resources).

Complementary externalities occur when external effects complementing each other appear during the process of production or consumption of goods.

Example of positive complementary external effects is a beehive and an orchard. Honey production externalities are represented in the form of pollination of flowers, fruit trees and crop improvement of garden. Fruits production externalities are represented in the form of nectar, necessary for bees, and increase the production of honey.

### ***Exhaustible and inexhaustible external effects***

An important approach to external effects is their division on exhaustible and inexhaustible.

External effect is exhaustible, if the consumption by some third party means that it is not available for consumption by others. For example, if a bee producing honey pollinates a flower or some tree in the garden, it can't pollinate another flower or tree.

External effect is inexhaustible, if the consumption by some third party means that it is also available for consumption by others. For example, environment pollutions is an inexhaustible external effect.

Inexhaustible negative externalities can be called public harmful goods or public bads.

### ***Solutions to the problem of externalities***

There are several solutions to the problem of externalities. The most important of them are the following:

- distribution of property rights;
- special taxation;
- internalisation of external effects;
- direct state control.

Let us consider some of these solutions in more detail.

- **Distribution of property rights.** In this case the problem of external effects bases on approach, known as the Coase theorem. The Coase theorem can be formulated in the following form: in a competitive economy with complete information and zero transaction costs, the allocation of resources will be efficient and invariant with respect to legal rules of entitlement. So, external effects will lead to a Pareto-efficiency, if property rights are clearly defined.

- **Special taxation.** In the framework of government intervention, there is a mechanism by which you can solve the problem of externalities, such a mechanism is the special taxation, so-called Pigouvian taxation. It is a tax inflicted on the manufacturer in the situation when he creates a negative externality. It enables to include public costs in the private production costs.

- **The internalisation of external effects** is one of the solutions to the problem of negative externalities. The internalisation of external effects means that the company takes into account a negative external effect produced by this company and takes into consideration social costs while determining the optimal production volumes. It's the situation when the firm generates negative externalities, and corrects it by its further actions, so it is the process of internalisation.

- **Direct state control** is an administrative method used by federal and regional authorities. They have a possibility to prohibit or restrict any actions undertaken by different legal entities at all levels. For example, in the big cities, local authorities prohibit or restrict entry of vehicles to the city centre.

**3. Asymmetric information** is incomplete, unevenly distributed or defective information.

In economy asymmetric information arises when two sides of the market have different information about the goods and services being traded. In particular, sellers typically know more about what they are selling than buyers do. This can lead to adverse selection where bad-quality goods drive out good-quality goods, at least if other actions are not taken.

Asymmetric information occurs when the individual or organization knows something we or other individuals and organizations don't know. We can say that some market participants know more than others.



In general, there are several forms of asymmetric information. So, asymmetric information can be viewed as insufficient information from the position of the buyer or seller. There are two cases:

- lack of information about the sellers;
- lack of information about the customers.

In addition, asymmetric information is either in the form of hidden action, either in the form of hidden knowledge.

A classic example of asymmetric information is given by the health sector. The patient is not able to choose the best method of treatment or to choose the right medication, as he does not own professional information.

We can highlight the following directions of state regulation in the framework of the asymmetric information problem:

- legislation on protection of consumer rights;
- law on advertising;
- legislation on labor protection;
- legislation on insurance;
- legislation about sanitation and hygiene in food production;
- the law on insurance of bank deposits;
- regulation of public health system;
- regulation of public education system;
- the laws on fraud;
- legislation on joint stock companies;
- technical norms and standards.

## *Questions and Problems on Topic # 2*

---

**1. (IIK – 2, 31) What are market failures?**

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

**2. (IIK – 2, 31) What are government failures?**

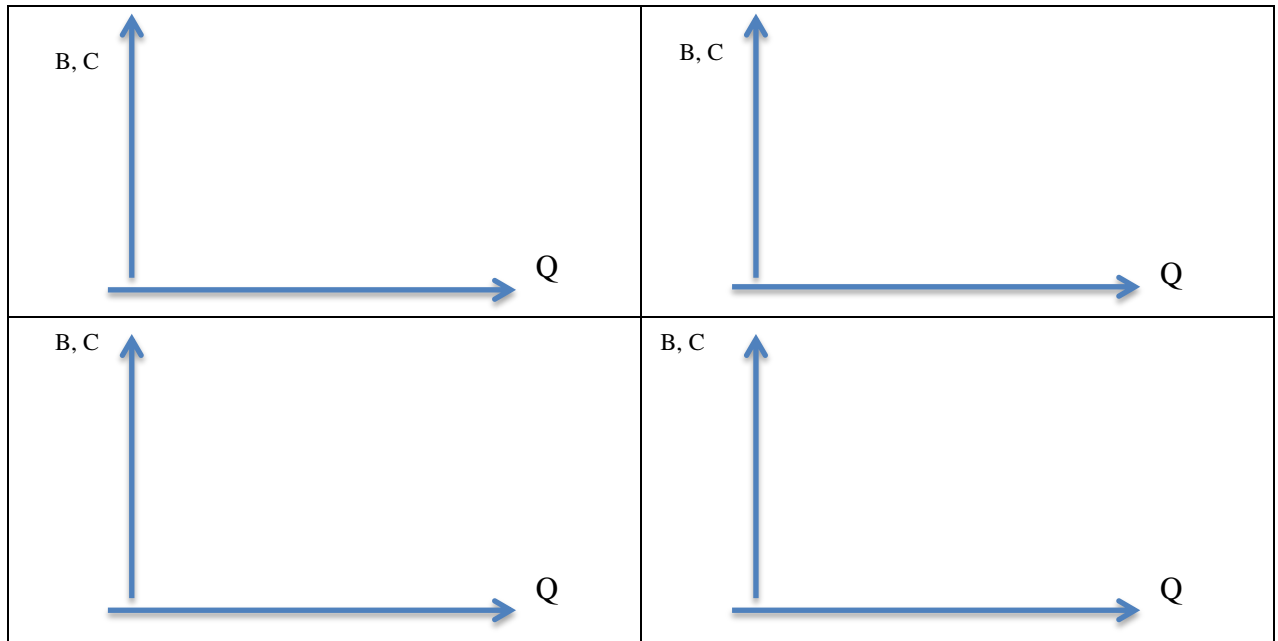
- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

**3. (IIK – 2, Y1) What *passive Government failure* means.**

**4. (IIK – 2, Y1) Give examples of any three government and market failures.**

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

5. (IIK – 7, Y1, B1) Plotted on figures below a) negative externalities in consumption; b) negative externalities in production; c) positive externalities in consumption; d) positive externalities in production



6. (IIK – 7, Y1, B1) Supply of public goods:  $P = 20 + \frac{1}{2} Q$ .

Marginal private benefits:  $P = 40 - \frac{1}{2} Q$ .

Marginal social benefits:  $P = 60 - \frac{1}{2} Q$ .

What kind of externalities causes these goods? What should the government do to avoid the externality?

7. (IIK – 7, Y1, B1) Students are willing and able to pay for their study:  $P = 50 - 0.5N$ , ( $N$  – the number of students). Marginal social benefit is given by  $MSB = 70 - 0.5N$ . Total costs of the University for training students given by  $TC = 10N + N^2$ .

Define:

- a) Quantity and type of an externality;
- b) How many students meet their maximum total utility?
- c) How many students meet maximum social utility?
- d) The amount of tuition per student and the sum of subsidies for training, corresponding to the maximum social utility of higher education.

8. (ΠΚ – 2, Υ1, Β1) Define a negative production externality and a positive consumption externality.
9. (ΠΚ – 2, Υ1, Β1) State four reasons for why the market does not manage to compensate parties for externalities.
10. (ΠΚ – 2, Β1) What does a Pigouvian tax mean? Give an example how it can be used.
11. (ΠΚ – 2, Υ1) Show in a figure how a subsidy can correct for a positive production externality. Show also the government's costs of the subsidy.
12. (ΠΚ – 2, Υ1, Β1) Define a positive consumption externality.
13. (ΠΚ – 2, Β1, Υ1) How large tax rate should the government use in order to eliminate a negative externality? Why does this tax rate work? Show in a figure.
14. (ΠΚ – 2, Β1, Υ1, Β1) Define a negative consumption externality.
15. (ΠΚ – 2, Υ1, Β1) How large subsidy rate should the government use in order to eliminate a positive externality? Why does this subsidy rate work? Show in a figure.

### **TOPIC 3. PUBLIC GOODS**

*Questions for the lectures and the seminars:*

*Public goods: definitions, properties and types. Pure and mixed public good. Provision, Clarke tax. Club goods and local public goods, Demand and supply of public goods. The optimal volume of public goods' production. Pricing in the market of public goods. Lindahl equilibrium. The failure of the market in the case of public goods. The problem of free riders.*

Public goods are goods consumption of which is available to many people at the same time.

Public goods are characterized by two properties: non-excludability and non-rivalry in consumption.

Non-excludability means that the increase in the number of consumers of the good does not reduce the usefulness delivered to each of them and if the public good is supplied, no consumer can be excluded from consuming it;

Non-rivalry means that the restriction of access of consumers to such benefit is practically impossible. At the same time consumption of the public good by one consumer does not reduce the quantity available for consumption by any other.

As for a private good it is excludable and perfectly rivalries. If it is consumed by one person then none of it remains for any other.

#### ***International, national and local public goods***

The most important characteristic of public goods is the territorial boundary of their consumption.

From this point of view public goods can be divided into international, national and local ones.

International public goods are available to all inhabitants of the planet (pollution of air abatement, control over expansion of the ozone hole, and others); they are provided to the citizens of a particular region of the Earth, or to several countries. Among public goods, that can be included into international, there are standards that reduce transaction costs, such as measures of length and weight, language, monetary system, the results of fundamental scientific research, international and regional stability.

National defense, legislation, the activities of the federal executive, legislative and judicial authorities and other refer to the national public goods.

Local public goods are public goods and services, access to which is possible at a certain territory, so it could be provided only for the population of bounded geographical part of a country

(several regions, city, district, etc). A range of local public goods is as follows: regional environmental programs, street lighting, the city park and so on.

### ***Pure and mixed public goods***

There are pure public goods and mixed public goods.

*Pure public goods* are goods and services with a high degree of before-mentioned properties of non-excludability and non-rivalry.

If one of these properties is limited, then this good is called a mixed public good. Pure public goods are rare; a lot of them have the properties of non-excludability and not rivalry only in a certain extent. National defense is an example of a pure public good. Concert is a mixed public good. Most public goods are mixed public goods.

Consumption of pure public goods by one person does not influence the amount of the good available for consumption by others, the marginal cost of providing additional public good to the consumer is zero ( $MC = 0$ ) (Figure 2).

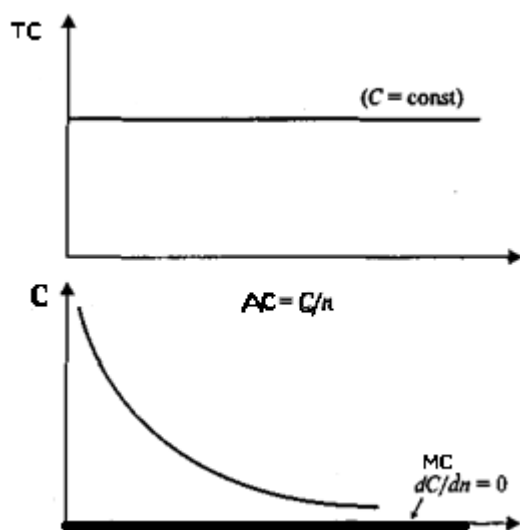


Figure 3.1. Costs of *pure public goods*

Until the marginal cost is zero, pure public good shall be delivered at zero prices. It does not mean that the aggregate cost of this benefit is not recovered. But in that case, a private company will not be able to produce a pure public good because it's limited by the need to comply with the budget balance. In any case, even if it tried to set the price, it would be unable to do it because the exception in this case is not valid.

In comparison with a pure public good a *mixed good* is excludable public good, it's a good with the property of excludability and its consumption is selective and decreasing. Mixed public good can be the object of sale, so people must pay for their consumption.

In fact for the most mixed public goods there is a characteristic of overflow. It occurs when many people begin simultaneously consume the same good. For example, in the case of road usually anyone can use it without disturbing others. But in some sections of the road it might be a cluster of machines, interfering with each other, this situation leads to lower speed and limiting access of other cars on the road.

Thus, the overflow means the following if a number of consumers of public goods increases it leads to the disappearance of not-rivalry in consumption.

In this case the marginal cost of providing additional benefits to the consumer is not equal to zero but higher than zero ( $MC > 0$ ) (Figure 3).

Competition for the consumption of the public good between individuals can be sharp.

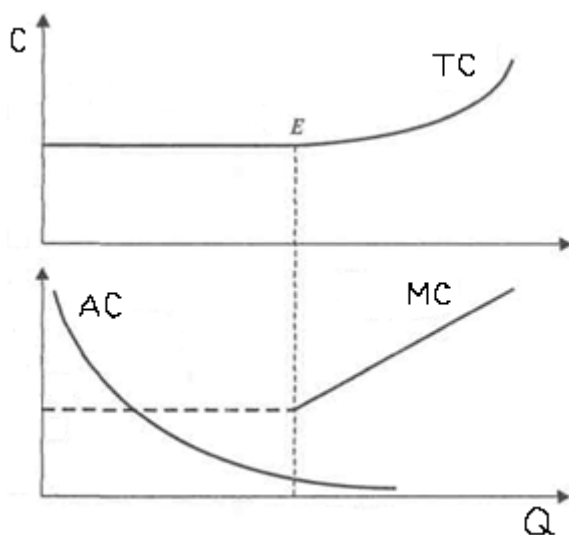


Figure 3.2. The cost of public goods (the situation of overload)

Another type of mixed good is the good of joint consumption with limited access, which is called a *club good*. A club good is a mixed public good, the number of users is limited, benefits and costs are divided between consumers.

In this situation not only individuals but groups of people are excluded from consumption. Access to the consumption of this kind of mixed goods is limited by statutory requirements and fees. Typical examples of mixed goods with restricted access are different clubs (for example, a tennis club), a voluntary associations of homeowners and other self-governing public organisations.

The number of consumers of public goods club may be increased up until overflow, caused by the last "club member", will not lead to reduced benefits for other members. Before this point, costs become lower due to the participation of the new member of the club in financing costs. In the case when the number of users is specified, the amount offered for consumption goods should

increase until the situation when the marginal cost of an individual who receives this benefit would balance its marginal utility.

Consider the situation shown in Figure 4. If the number of users reaches  $N_a$  or exceeds  $N_b$  it is unprofitable consumption of the good. The number of users between the  $N_a$  and  $N_c$  is the most favourable. Such number of consumers gives higher level of usefulness to the individual because the benefit from obtaining good overlaps the cost. At the interval  $N_dN_c$  benefits are estimated maximum without regard to costs.

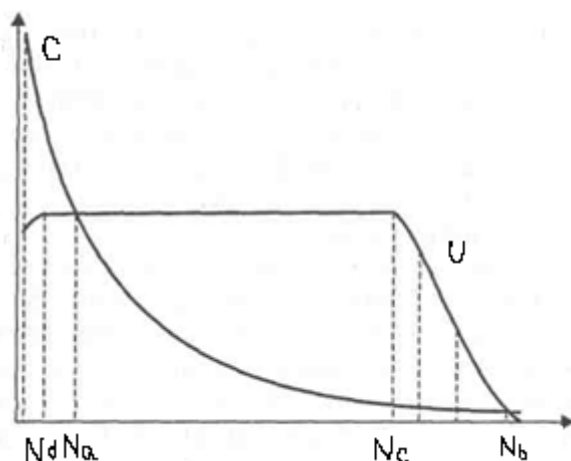


Figure 3.3. Costs and utility of a club good

### ***Merit goods and merit bads***

A public good is one of market imperfections, when the state intervention is needed.

Merit goods and merit bads are the goods, usefulness or maleficence of which individuals are not aware at all or not aware of the full extent. Merit goods satisfy the requirements, which the society believes necessary to support. These needs are not formed properly that's why individuals select lower consumption of these goods. The main examples are primary and secondary education, school meals, a safety belt in the car, education, vaccination against different diseases, concert halls, subsidized housing for low-income families. The opposite case is merit bads. There are goods or services that society considers necessary to restrict. These include alcohol, tobacco, drugs, excessive speed etc.

### ***The optimal volume of public goods production***

As a public good has the property of non-rivalry, each unit of produced goods in our example will be consumed by both consumers A and B. The total marginal benefit of each consumer is represented by curves  $MB_a$  and  $MB_b$  (Figure 3.4.). In this case, the marginal benefit of the first unit of the public good is equal to 5 for the consumer A, and for the consumer B it is equal to 10. In the case of a public good, the aggregate value of the public good is defined by vertical summation of the

individual curves of marginal benefit  $MB_a$  and  $MB_b$ . The total value of public goods is represented by the broken line  $MB = MB_a + MB_b$  in Figure 5. (Figure 5). Thus, the total benefit of the first unit of the public good, in other words, the general willingness to pay, is equal to 15. If 7,5 units of the public good are made, only the consumer B is willing to pay. In this case, the total marginal utility and the general willingness to pay, will be represented by marginal benefit estimated by the consumer B ( $MB_b$ ).

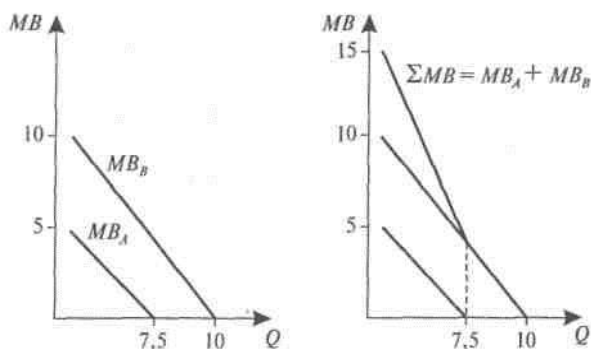


Figure 3.4. The total value of the public good

The optimal volume of production of public goods  $Q_E$  occurs when the marginal benefit of all consumers is equal to the marginal production costs of public goods:  $MB = MS$ . (Figure 3.5.)

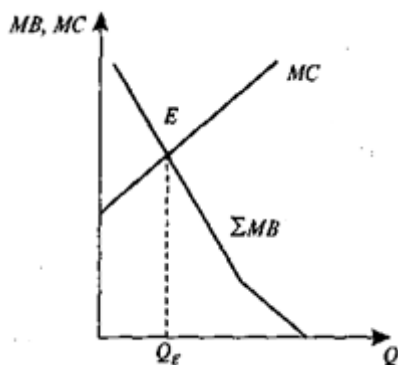


Figure 3.5. The optimal volume of public goods production

### ***The market failure in the case of public goods***

As it was said above, the market mechanism does not work in the case of public goods. As a rule, a public good is available for consumption by many people and it requires large expenses for their production. If each of consumers appreciates insufficiently the benefits of consumption of some goods, therefore he is not ready to pay all the costs of its production. If a private company was a producer this good would not be manufactured. So the market does not work, there is a market failure.



In Figure 3.6. it is shown that both the consumer A and the consumer B appreciate the benefits of the public good as low, they are not ready to pay for it. If there is no effective demand for a public good, it is not possible to produce it. So, the market is not effective.

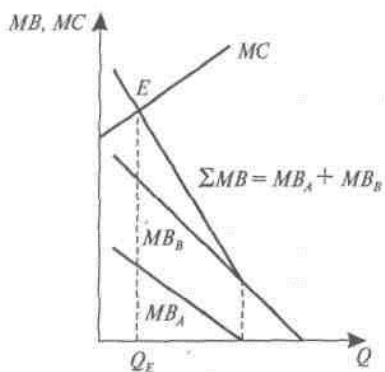


Figure 3.6. A market failure in the production of public goods

***Financing of public goods production, the free-rider problem and the optimal volume of public goods***

Many people are involved in the consumption of the public good. But many people wouldn't like to pay for the granted good. The free-rider problem is the problem of consumption of public goods without a corresponding payment for it.

The government is facing the same problem as a private company producing private goods. It's the problem of financing the production of public goods. Private company appoints price for the good to cover its costs and the government imposes taxes to cover the cost.

Besides the problem of financing, it's necessary to determine the optimal volume of public goods, that can be Pareto efficient one. A collective action is required to determine the volume of public goods production. The government needs to identify public preferences and to solve the free-rider problem.

Identification of preferences is the provision of information to the public goods producer. The state should know how consumers appraise benefit from the consumption of these goods. Revealing of these preferences can help to define the scope of manufacture of certain public goods. But people prefer to keep back their preferences with the purpose of decreasing their taxes.

One of the existing solutions to the problem of providing false information is the introduction of special tax; Clark tax is used to identify preferences.

Clark Tax is designed to be beneficial to provide accurate information in identifying preferences.

### *Lindale equilibrium*

Prices of public goods for different individuals, reflecting the differentiation of substitution norms, could serve as the basis for distribution of the tax burden. This situation is called the balance of Lindale and the prices achieved are the prices of Lindale.

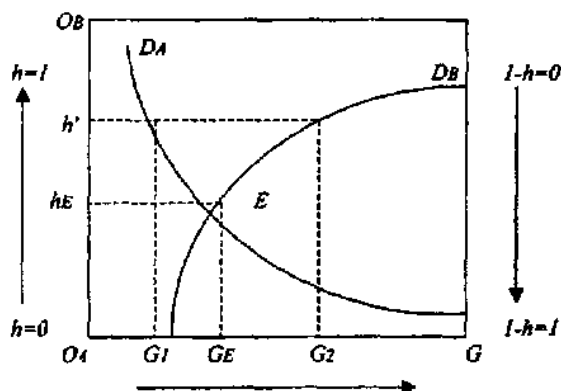


Figure 3.7. Lindale Model

In the model of Lindale public good is consumed by two homogeneous groups A and B (Figure 3.7.). The total public spending is on X axis (G), the share of the amount which is paid by the group A and B is represented on other axes. At the point of  $O_1$  group A does not bear any costs ( $h=0$ ), the 100% of the amount is paid by the group B ( $1-h=1$ ). As the movement to the point of  $O_2$  is realised the share of the group A grows up ( $h=1$ ), and the group B uses the public good free of charge ( $1-h=0$ ).

Marginal utility of public goods is diminishing; the lines of demand with negative slope ( $D_A$  for group A and  $D_B$  for group B) are formed up. Point, located at the intersection of two lines of demand, is the point of Lindale equilibrium. At this point the value of consumption of the last unit of the public good is equal to the tax price of two groups. This equilibrium is called fiscal optimum.

### *Questions and Problems on Topic # 3*

1. (IIK – 2, 31) What are the critical arguments lead Samuelson to the Lindahl theory?
2. (IIK – 2, 31) When the Lindahl tax cannot be progressive?
3. (IIK – 2, 31) Some consider EU as a club good. Please, by using the terminology of goods classification, confirm or refute the statement.
4. (IIK – 2, 31) Please, list the limitations of automatic voluntary involvement of individuals in collective action.
5. (IIK – 2, 31) Give examples of private good, natural monopoly, and public good

6. (IIK – 2, 31) **Public goods are often thought to be goods or services that are provided by the government, but that is confusing cause and effect. What are the characteristics of a public good? Who provides the public good is not one of the characteristics?**

7. (IIK – 2, Y1, B1) **Consider open educational resources (OER), for example, open textbooks.** These are available free online from companies. Make a case for why OER can be considered public goods. Who covers the cost of providing these products and why is that relevant to your answer?

8. (IIK – 7, Y1, B1) **Under the conditions of perfect competition a company is read to deliver a good “A” in any amount.** Marginal costs of the company are equal 4 m.u. and are constant.

$$Q_A = 40 - 2P; Q_B = 20 - P$$

Demand of group A and B of consumers are

Find the efficient level of provision if the good is: A) private; B) public.

9. (IIK – 7, Y1, B1) **Willingness of three houses of residents of the district to pay for landscaping are**

$P_1 = 80 - Q; P_2 = 60 - Q; P_3 = 40 - Q$	where $P$ – is maximum money sum which residents of $i$ – th house agree to pay for a tree.
--	---

Total costs of landscaping are:  $TC = 10 + 2Q + 0.5Q^2$

Define:

- A) Pareto efficient number of trees;
- B) How many trees will be planted, if a firm conducting landscaping set a price for each tree at the level of:
  - a) average costs;
  - b) marginal costs;
  - c) whether all residents will participate in the financing of landscaping?

10. (IIK – 7, Y1, B1) **Data about profits and costs of three groups (A, B, C) of consumers of public goods is shown in the table below.**

- A) fill in the tables;
- B) define the optimal numbers of trees;
- C) how many trees will be planted if the costs and benefits are distributed as shown in the tables below.

**Table 3.1.**

*Even and uneven distribution of benefits*

Number of trees	TR	$MR_{\Sigma}$	$MR_i$			$MR_i$			$MC_{\Sigma} = 60$		
			50 %	30 %	20 %	33.3 %	33.3 %	33.3 %	33.3 %	33.3 %	33.3 %
1.	180										

2.	340										
3.	480										
4.	600										
5.	700										
6.	780										
7.	840										
8.	880										

**Table 3.2.**

*Even and uneven distribution of costs*

Number of trees	TC	MC	MC <sub>i</sub>			MR <sub>Y</sub> = 60		
			50 %	30 %	20 %	33.3%	33.3%	33.3%
1.	180							
2.	340							
3.	480							
4.	600							
5.	700							
6.	780							
7.	840							
8.	880							

Please, complete the statements:

If the costs and benefits are shared equally between consumers of public goods, the production of public goods is \_\_\_\_\_ optimal level of the good.

If the costs are distributed evenly, and the benefits are unevenly between users of the public good, the production of public goods \_\_\_\_\_ optimal level of the good.

If the costs are distributed unevenly, and the benefits are evenly between users of the public good, the production of public goods \_\_\_\_\_ optimal level of the good.

Please, try to explain these statements in terms of public expenditures and taxes.

## **TOPIC 4. PUBLIC CHOICE**

*Questions for the lectures and the seminars:*

*Public mechanisms for allocating resources. Voting. Majority voting. Majority Rule: May's Theorem, the Median voter theory, multi-dimensional voting, agenda manipulation. Alternatives to Majority Rule. The Paradox of Voting. Rent-Seeking behavior: Lobbying, Rent Creation. Logrolling. Excessive Government: Theory of Bureaucracy. "Principal - agent" problem. Corruption. Government failure.*

Public choice theory is a mechanism of non-market decision making carried out through the system of political institutions.

The mechanism of public choice has a number of distinctive features in comparison with the market mechanism.

First, the market mechanism allows socio-economic inequality for members of society, the concentration of economic power in a small group of people is characterized by significant differences between people according to their economic role. The political process of a democratic society has the principle "one voter - one vote". The mechanism of public choice ensures equal opportunities for all citizens to participate in politics, government and policy making.

Second, the mechanism of the public selection was based on collective decision making, through direct or representative democracy.

Third, the mechanism of direct democracy (referendum), and also representative democracy (through electing their representatives to the relevant authorities) focuses on the voting on alternative socio-economic programs, and not on particular issues of current policy.

Fourth, the mechanism of public choice includes compulsory order of financial relations between the state and the society members (for example, in implementing taxes).

Fifth, the mechanism of public choice includes governance structures that are built in accordance with the principle of the hierarchy and subordination, the precondition for the functioning of administrative structures is the use of the bureaucracy.

### ***Voting and the paradox of voting***

A market economy characterized by a democratic political system uses democratic choice. However, the conditions of democratic choice may be different. Public choice is carried out in conditions of direct or representative democracy.

Direct democracy is a political mechanism of public choice, which people should express their personal opinion about the extent of specific public expenditure.

Representative democracy implies that people vote for parties acting with its programs. Decisions about spending programs are delegated to elected representatives of these parties.

The voting is a universal model of collective decision-making. But the weight of each vote, the order of their submission and the way of summing up can affect the outcome of the vote. The meaning of the procedure is that, on the one hand, to identify its preferences, and on the other, taking into account the existing opportunities to reconcile them.

The assumption employed in analyzing voting is as follows: all voters choose to cast their votes. It is natural to question whether this assumption is reasonable. Although in some countries voting is a legal obligation, in others it is not. The observation that many of the countries frequently experience low voter turnouts in elections suggests that the assumption is unjustified.

The paradox of voting says that voting is irrational process, but despite of the irrationality of voting, many people vote. People vote, although the expected utility of the vote is negative.

The paradox of voting raises serious questions about why so many people do actually vote. Potential explanations for voting could include mistaken beliefs about the chance of affecting the outcome or feelings of social obligation. After all, every democratic society encourages its citizens to take civic responsibilities seriously and to participate actively in public decisions. Even if the act of voting is unlikely to promote self-interest, citizens feel they have a duty to vote. And this is exactly the important point made by the cost-benefit model of voting.

Participation in voting almost always involves costs. The costs of voting are the following; first and foremost you spend time and energy on the deliberations of the possible voting options analysis and on the voting process itself.

There is the direct cost of travelling to the point at which voting takes place and there is also the cost of the time employed. If the individuals involved in voting are rational utility-maximizers, then they will only choose to vote if the expected benefits of voting exceed the costs.

### ***Collective decision-making***

Sometimes within the bounds of the collective choice procedure of *unanimous decision-making* is used.

Let considered two alternatives: the X and Y. If all participants individually prefer the first alternative to the second, then, obviously, when making collective decisions alternative X will receive the unanimous support. Decision adopted unanimously, can be implemented without the use of coercion, but it's more expensive, because it's necessary to co-ordinate a lot of individual preferences.

In practice, the most common procedure of collective decision-making involves the application of the *simple majority rule*. According to this rule the alternative supported by more than half of voting participants gets the better. Usually the rule requires the approval of  $N / 2 + 1$  votes.

When there are only two options, majority rule is a simple and compelling method for social choice. When there are more than two options to be considered at a time, we can still apply the principle of majority voting by using binary agendas which allow us to reduce the problem of choosing among many options to a sequence of votes each of which is binary.

For example, one simple binary agenda for choosing among the three options (A, B, C) in the Condorcet Paradox is as follows. First, there is a vote on A against B. Then, the winner of this first vote is opposed to C. The winner of this second vote is the chosen option.

### ***Arrow's Impossibility Theorem and May's theorem***

The central result of the theory of social choice, Arrow's Impossibility Theorem, says that there is no way to devise a collective decision-making process that satisfies a few commonsense requirements and works in all circumstances.

Condition 1 (I) Independence of Irrelevant Alternatives. Adding new options should not affect the initial ranking of the old options; so the collective ranking over the old options should be unchanged.

Condition 2 (N) Non dictatorship. The collective preference should not be determined by the preferences of one individual.

Condition 3 (P) Pareto criterion: If everybody agrees on the ranking of all the possible options, so should the group; the collective ranking should coincide with the common individual ranking.

Condition 4 (U) Unrestricted domain: The collective choice method should accommodate any possible individual ranking of options.

Condition 5 (T) Transitivity: If the group prefers A to B and B to C; then this group cannot prefer C to A.

There are two theorems. Theorem 1 is called Arrow's Impossibility Theorem. When choosing among more than two options, there exists no collective decision-making process that satisfies the conditions I.N.P.U.T. The implication of Arrow's Impossibility Theorem is that any search for a "perfect" method of collective decision-making is doomed to failure.

Theorem 2 is called May's theorem. When choosing among only two options, there is only one collective decision-making process that satisfies the requirements of Anonymity, Neutrality, Decisiveness and Positive Responsiveness. This process is majority rule.

***The Condorcet paradox***

The most famous pair-wise voting method is the Condorcet method. It consists of a complete round-robin of majority votes, opposing each option against all of the others. The option which defeats all others in pair-wise majority voting is called A Condorcet winner. The problem is that the existence of A Condorcet winner requires very special configurations of individual preferences. For instance, with the preferences given in the Condorcet paradox, there is no Condorcet winner. So a natural question to ask is under what conditions a Condorcet winner does exist.

The Condorcet paradox or the paradox of circular vote illustrates that the above criteria are incompatible. In this case the transitivity of public choice, i.e. its coherence and consistency, is not respected while the principle of simple majority voting is used. Thus, consistent social choice is impossible. The Paradox Condorcet is also called the paradox of circular vote. The Condorcet paradox illustrates Arrow’s Impossibility Theorem.

Three voting groups (A,B,C) with their preferences regarding options x, y, z are provided in the table 4.1.

Table 4.1.

The Condorcet paradox

Voting groups	Preferences		
<i>A</i>	<b>X</b>	<b>Y</b>	<b>Z</b>
<i>B</i>	<b>Y</b>	<b>Z</b>	<b>X</b>
<i>C</i>	<b>Z</b>	<b>X</b>	<b>Y</b>

If we use successive voting taking up pairs, the results of voting when the majority principle is in force, will be as follows:

1. If two alternatives (X and Y) are voted, X is selected, because it is supported by A and C.
2. If Y and Z are voted, Y is selected, because it is supported by A and B.
3. If Z and X are voted, Z option is selected because it is supported by C and B.

Voting results (results collective choice) are inconsistent and contradictory.

However, voting on the principle of simple majority does not always lead to the Condorcet paradox. In particular, coherent and consistent outcome of the vote could happen in two cases. First, the voting procedure is changed. Second, preferences of the voting group C will be different. Here are two options of the voters’ preferences P1 and P2 (table 4.2).

Table 4.2.

Preferences of voters (selection by a majority vote)



Voters	Options of the voters' preferences					
	P1			P2		
A	X	Y	Z	X	Y	Z
B	Y	Z	X	Y	Z	X
C	Z	X	Y	Z	Y	X
	x is more preferable than y (a majority vote, A u C)			y is more preferable than z (a majority vote, A u B)		
	y is more preferable than z (a majority vote, A u B)			z is more preferable than x (a majority vote, B u C)		
	z is more preferable than x (a majority vote, B u C)			y is more preferable than x (a majority vote, B u C)		

If the variant P1 is selected, transition (i.e. the coherence and consistency) is absent (if it is transitive, then x is preferable to z).

In the case of option preferences P2 vote on the majority principle is transitive. Differences between two preferences P1 and P2 are graphically depicted in figure 9. The difference between these two options is the following, in the first case (P1), the curve of preferences has two peaks, the second (P2) – one peak (Figure 4.1.).

Axis Y presents preferences of three voters (x, y, z) by ranking these preferences (1 is the most preferred choice, 3 is the least preferred).

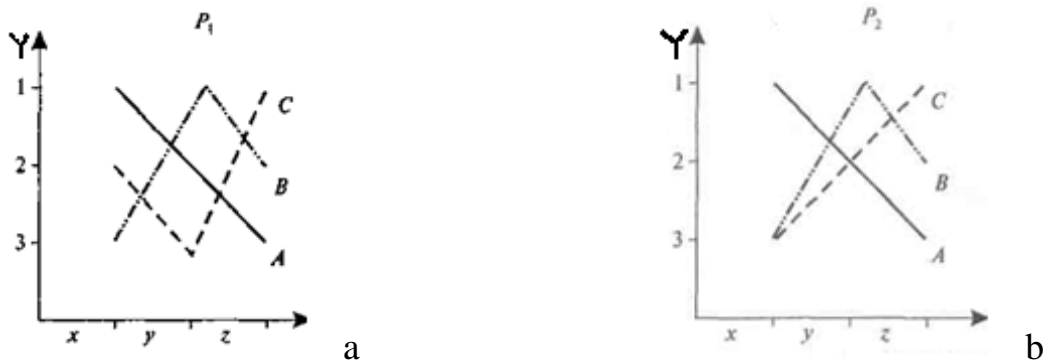


Figure 4.1. Voters' preferences: with two peaks (a) and with one peak (b)

Thus, when the preferences of voters have one point of maximum and uniformly distributed on a scale of preferences, voting by majority rule is transitive, i.e. it's coherent and consistent.

If there are multiple options for voting (two variants) and preferences with two peaks the results of the vote will depend on the voting procedure.

### ***Agenda Manipulation***

To see how agenda-setting can be effective, suppose there are three options:

- X option is the creation of a city park;
- Y option is construction of municipal housing;
- Z option is sale of land for private construction.

Representatives of various parties participate in the voting. They have the following preferences as in the Condorcet paradox (described in table 1).

1. the Democratic Party preferences are X, Y, Z
2. the Republican Party preferences are Y, Z, X;
3. the Communists Party preferences are Z, X, Y.

If the first voted options are the city park and the municipal housing and then municipal and private housing are voting, then the choice is made in favor of the city park.

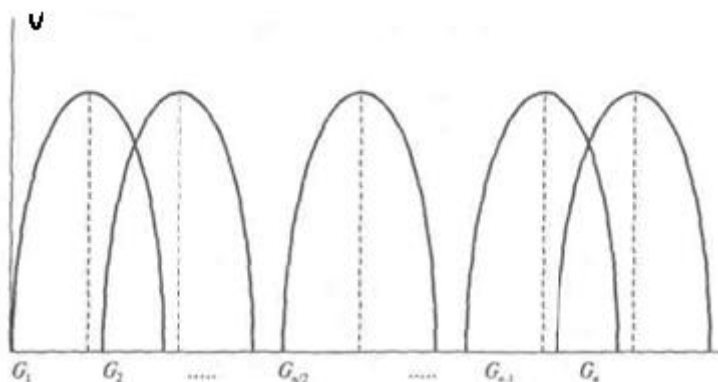
At the first stage of the voting park is a better alternative in comparison with the municipal housing (there are 2 votes against 1). Then the option of private building is recognized as the worst in comparison with a variant of municipal housing (there is 1 vote against 2). In the end, the best option is the city park; it is more preferable than municipal housing and then private construction. But if we put to the vote the city park and municipal housing first, and then the city Park and private construction, and stopped the voting, then the result would be the opposite.

These observations show how the choice of agenda can affect the outcome. Such outcomes are called sophisticated outcomes of binary agendas, because voters anticipate what the ultimate result will be, for a given agenda, and vote optimally in earlier stages. So people who make the agenda can achieve the anticipated results by agenda –manipulation.

### ***Median Voter***

The median voter is, from one side, the voters who prefer the middle option and does not like the extreme options of one or another community project, from the other side, voters who are situated in the middle of the election spectrum.

The median voter theorem says that if we use the majority vote the option that the median voter prefers wins.



#### Figure 4.2. The voters' preferences

If we take some options of government expenditure we can view at least two variants (figure 4.2.).

1. If options Gn2 and G1 are voting, there are a lot of voters who prefer a higher level of government spending, so the median voter wins.

2. If options Gn-1 and Gn are voting the median voter position is also preferable, as there are those who prefer a lower level of government spending.

So there is always a majority of voters who agree with the median voter, and the option preferred by the median voter is a Condorcet winner.

#### ***Logrolling, lobbyism and rent-seeking***

One of the mechanisms to support the majority of the proposals of the group is logrolling. Logrolling is a voting procedure, when some political groups voting for the package of solutions to several independent questions are exchanging votes.

For example, two programs are debated in the Parliament, there are three parties. The parties I and II own 30% of the seats each and each of them was speaking on behalf of 30 million voters, while the party III has 40% of the seats and it is supported by 40 million voters. Preferences of the voters are still considered homogeneous, Positive or negative values of individual net winnings of each party in case of adopting programs are given in table 3.

Table 4.3.

Voters' net win (in monetary units)

	<i>option A</i>	<i>option B</i>
I	100	-50
II	-60	80
III	-50	-50

In the situation when logrolling isn't used, the program A and the program B receive only 30% of votes and would be rejected. However, the agreement between the parties I and II provides the adoption of both programs by 60% of the vote. But the party III and its electorate have losses. This means that constituents of the party III will have to pay additional taxes to fund programs that do not bring them tangible benefits.

The United States National Lobbyist Directory records more than 40,000 state registered lobbyists and 4,000 federal government lobbyists are registered in Washington.

These lobbyists are not engaged directly in production. The behavior that the lobbyists are engaged in has been given the name of rent-seeking in the economic literature.

Rent-seeking, or the desire to receive annuity is an investment with the aim of acquiring special privileges or deriving profit.

Rent-seeking is the expenditure of resources to create a profitable opportunity that is ultimately damaging to society. Rent-seeking hinders the economy and limits competition.

Costs engage in rent-seeking include several elements.

First, there are the tangible and intangible costs, in particular the costs of the campaign in the media, lobbying and direct bribery etc.

Second, the losses of society are provided by companies or groups who receive different restrictions and privileges (the case of monopolies).

The case of rent-seeking is primarily the inefficiency of the state.

### ***Bureaucracy and government failures***

Bureaucracy is the part of the public sector of the economy, which is directly responsible for the implementation of economic projects and for the implementation of the economic policy.

Traditionally bureaucrats are viewed as people who are motivated solely by the desire to serve the common good. They achieve this by conducting the business of government in the most efficient manner possible without political or personal bias. This is the idealistic image of the bureaucrat as a selfless public servant.

The problem of asymmetric information and bureaucratic monopoly is reflected in the model of budget maximizing (Niskanen model).

The model of budget maximizing (Niskanen model) is the concept proving the possibility of a substantial and excessive funding of some firms or governmental bodies caused by asymmetric information between them and those who distributes budgetary funds.

Government can award subsidies to firms, but this may protect inefficient firms from competition and create barriers to entry for new firms because prices are kept at the low level. The government does not have enough information that enables it to make effective decisions about the best way to allocate scarce resources. It's also called an information failure.

Government failure occurs when government intervention in the economy causes an inefficient allocation of resources and a decline in economic welfare. It includes a principal-agent problem, asymmetric information, excessive bureaucracy and rent-seeking.

***The essence of the democratic structure*** of the state is to ensure a diverse of individual preferences in the production, financing, and the redistribution of public goods. The type of the political system determines the possibility of arranging of alternative states of society.

Main political systems are:

1. Democracy (Direct and Representative)
2. Republic
3. Monarchy
4. Communism
5. Dictatorship

Democracy as a decision procedure can be performed in any political system.

There are several procedures of decision making in direct and representative democracies:

- *Plurality voting: Simple majority; Relative majority – first-past-the-post*
- *Borda Count Method:* each candidate (or alternative) gets 1 point for each last place vote received, 2 points for each next-to-last point vote, etc., all the way up to  $N$  points for each first place vote (where  $N$  is the number of candidates/alternatives). The candidate with the largest point total wins the election
- *Condorcet scoring:* all candidates are ranked and compared in pair-wise elections, whoever has the most wins is elected
- *Copeland scoring* or Copeland's pairwise aggregation method is a method in which candidates are ordered by the number of pairwise victories, minus the number of pairwise defeats
- *Approval voting:* is a voting procedure in which voters can vote for as many candidates as they wish. Each candidate approved of receives one vote and the candidate with the most votes wins<sup>1</sup>
- *STV – single transferable vote (IRV – Instant-runoff voting):* The Single Transferable Vote (STV) is a form of proportional representation which uses preferential voting in multi-member constituencies. Candidates don't need a majority of votes to be elected, just a known 'quota', or share of the votes, determined by the size of the electorate and the number of positions to be filled<sup>2</sup>.

### *Questions and Problems on Topic # 4*

---

1. (PIK – 2, 31) **What are objects of Public Choice Theory?**
2. (PIK – 2, 31) **What principles underlie in Public Choice Theory?**
3. (PIK – 2, 31) **Examine the actions of legislators and public employees.**
4. (PIK – 2, 31) **Are any peculiarities of voting procedures in dependence on a political system?**
5. (PIK – 2, 31, Y1) **Can you make some comparisons Public Choice Theory with Market Theory?**
6. (PIK – 2, 31) **What are distinguishing characteristics of each stage: anarchy; constitutional choice; post - constitutional choice?**
7. (PIK – 2, 31, Y1) **Analyze the stages that your country has passed through; Mention time frames and main institutions arising during the stage.**
8. (PIK – 7, Y1, B1) **The city council has asked you, an economist, to do an analysis of a change in a rule they are considering. They are thinking about earmarking 1% of a 4% city sales**

---

<sup>1</sup> <http://www.ctl.ua.edu/math103/voting/approval.htm>

<sup>2</sup> <http://www.electoral-reform.org.uk/single-transferable-vote/>

tax (right now assume the entire 4% goes into a general fund and is not earmarked for any particular purpose). The entire 4% tax is up for a renewal vote in one year but they want the change to be effective immediately. (Earmarked means the revenue raised from that 1% tax will go to a specific purpose - I deliberately did not tell you the purpose, so you might want to think about that in your answer).

They want you to provide a **public choice** explanation of how this change might effect people's behavior and why. Provide two ways by which people might change their actions in response to this new rule. State any assumptions you make<sup>3</sup>.

**9. (IIK – 7, Y1, B1) Preferences of four groups of voters are in the table. They have to choose one of four projects: A, Б, B, Г.**

Group 1 (4 voters)	Group 2 (6 voters)	Group 3 (7 voters)	Group 4 (8voters)
A	A	Б	Б
Б	Б	Г	Б
B	Б	B	Г
Г	Г	A	A

Who will win in the case of

- a) Plurality voting
- b) Borda Count Method
- c) Condorcet scoring
- d) Copeland scoring
- e) STV.

<sup>3</sup> [http://faculty.fortlewis.edu/walker\\_d/econ\\_369\\_-\\_hw1.htm](http://faculty.fortlewis.edu/walker_d/econ_369_-_hw1.htm)

## **TOPIC 5. PRODUCTION IN PUBLIC SECTOR**

*Questions for the lectures and the seminars:*

*Managing the Public Sector's Assets and Liabilities. State-owned enterprises. State enterprises efficiency. Privatization: forms, efficiency and equity arguments about state intervention. Nationalization: Public versus private ownership. Competition and quasi-markets. Managing public sector liabilities: issues in domestic and external debt management.*

The public sector is a complex of economic entities, financial, international, financial, natural and other resources that are managed by the Federal state authorities and the regional authorities.

The scale of production in the public sector is limited by the extent of government ownership. The state property is represented by:

- the capital of state enterprises;
- the shares in joint ventures;
- the state budgetary funds;
- the market infrastructure of the economy;
- the industrial infrastructure of the economy;
- the social infrastructure of the economy;
- strategic stocks of raw materials and foodstuffs;
- lands, forests, water resources owned by state;
- mineral reserves.

State property exists in all developed countries, but its scale varies in different countries. Western European countries as Austria, France, and Germany have the greatest degree of state ownership. The state property in the US and the UK is moderate in comparison with other countries. The state's share in the material wealth of the USA is about 15% of the national wealth. On the other hand, in France, the share is about 40% of national wealth. Important indicators characterizing the extent of government production are:

- the share of GDP produced by the state-owned enterprises;
- the share of the employed in the public sector;
- the share of public investment in the total volume of investments etc.

In Austria there are several industries where the share of public production is more than 75%. These are postal services, telecommunications, energy, gas, rail and air transport, metallurgy. In the US there is only one industry, where the state's share in production of more than 75%, it's the postal service. In other sectors the share is insignificant.

Usually the industries with a high degree of public production are the following:

1. The industrial infrastructure of the economy, which includes:

- post office;
- telecommunications;
- electric power industry;
- oil and gas industry;
- railway transport;
- air transport.

2. Social infrastructure of the economy, which covers:

- education;
- health;
- utility services;
- ensuring of public order;
- ensuring national security.

3. The market infrastructure of the economy, which includes:

- financial sector (public finance, public lending);
- monetary circulation (the Central Bank and money emission);
- the labour market (organizations supporting labor supply);
- land market (organizations supporting the land market).

Thus, the necessity of the state production in the above sectors of the national economy arises from:

- the absence or inability of competition in these sectors (for example in the case of natural monopoly);
- public interest associated with the production, social and market infrastructure of the national economy.

### ***Efficiency of state enterprises***

There are many factors that can negatively influence the efficiency of state enterprises. These include the following:

1. Problems of control and organization of production process, including:

- there is no threat of bankruptcy, because the government subsidizes all activities;
- there is no purpose of profit maximization;
- there are no incentives to improve efficiency;
- there are difficulties in long-term investment programming;



- bureaucratic goals (maximizing the size of the organization);
  - restrictions on the type and quality of material costs;
  - political aspects of economic decisions; strong impact of politics;
  - low propensity to risk (emphasis on formal procedures).
2. Peculiarities of incentive system for administrative servants, including:
- weak threat of dismissal;
  - low salaries in comparison with the similar work in the private sector;
  - absence of wage system that can stimulate productivity;
  - difficulties in determining the results of the work;
  - corruption.
3. Features of competition, including:
- lack of competition (e.g. postal service);
  - development of natural monopoly (bureaucratic monopoly).

There are also studies showing that state enterprises are not less efficient than private enterprises.

### ***Privatization and nationalization***

Privatization is the transfer of state property to private ownership. The government can sell assets to make them more efficient or to receive money (in case of budget deficit). Nationalization is the process of taking a private industry or private assets into public ownership by a national government or state. Nationalization usually refers to private assets, but it may also mean assets owned by lower levels of government, such as municipalities, being transferred to be the state.

The goal of nationalization can be different:

- national security of the country or society's needs. The government controls strategic enterprises and other units in production and social spheres;
- the economic security of the country;
- protection of consumers from abuse, if it isn't possible to overcome the negative effects of natural monopoly by market methods;
- implementation of structural changes in national economy;
- interdiction of the illicit transfer of profits abroad;
- implementation of the main socio-economic targets set in government programs.

### *Questions and Problems on Topic # 5*

- 
- 1. (III – 2, Y1) Make identification of units in the government and public sectors**
  - 2. (III – 2, Y1) Define “government unit” and “public unit”**
  - 3. (III – 2, Y1) List the methods of government control of non-profit institutions**

4. (ΠΚ – 2, Υ1, Β1) **List the methods of government control of corporations**
5. (ΠΚ – 2, Υ1, Β1) **Explain the following notion: “Market/non-market delineation: the notion of economically significant prices”**
6. (ΠΚ – 2, Υ1, Β1) **Consider the composition of the general government sector**
7. (ΠΚ – 2, Υ1, Β1) **Give examples of sub-sectors of the general government sector**
8. (ΠΚ – 2, Υ1, Β1) **Give examples of sub-sectors of the public sector**
9. (ΠΚ – 2, Υ1, Β1) **Give examples of borderline with quasi-corporations**
10. (ΠΚ – 2, Υ1, Β1) **Consider the case of restructuring agencies**
11. (ΠΚ – 2, Υ1, Β1) **Give examples of special purpose entities**
12. (ΠΚ – 2, Υ1, Β1) **Give examples of joint ventures**
13. (ΠΚ – 2, Υ1, Β1) **Give examples of supranational authorities**
14. (ΠΚ – 2, Υ1, Β1) **If there is a need for financing some public services which level of government should do it? Why?**

## **TOPIC 6. PUBLIC FINANCE**

*Questions for the lectures and the seminars:*

*The concept and structure of the public finances. The emergence and development of the theories of public finance. The nature and components of the budgetary system. The budget as historical and socio-economic category. Budget theory. The problem of balancing the state budget. Ways of covering the deficit of the state budget.*

The term *Finance* originates from the Latin "finis", i.e. the end. In Medieval Latin it was used to designate the date of payment, and then to refer to documents that prove the debt at the end of the transaction.

Since the end of the XVII century in France and in other countries under the term *Finance* people began to indicate the totality of the state economy, revenues, expenses and debts of the state.

As shown above, public sector in market economy includes the government with all the diversity of its economic categories and tools (budget, taxes, government spending, state property, state enterprise), the sector of local self-government (local finances, local property, etc.), and the non-profit sector.

The public finance is the part of the state financial system. These include:

- 1) public finance (the Federal budget, budgets of regions, the state loan, state extra-budgetary funds);
- 2) municipal finance (the local budget, local budgetary funds of the government bodies);
- 3) finance of the non-profit sector that implements the production of mixed public goods, including various extra-budgetary funds.

Budget system of the Russian Federation includes the following levels:

- the Federal budget and the budgets of state extra-budgetary funds;
- the budgets of Russian regions and the budgets of the territorial state non-budgetary funds;
- local budgets, including:
  - a) the budgets of municipal districts, the budgets of city districts and municipalities;
  - b) the budgets of urban and rural settlements.

### ***Budget***

Since the end of the XVII century, the budget became the name of the document that was approved by the Parliament and represented the plan of revenues and expenditures of the state.

In the Middle ages, the resources of the state and of the monarch were not distinguished. But the history of the English Parliament originates from the desire of nobles to limit the costs of the king and his right to introduce new fees at its whim.

England was the first country where after the revolution of 1648 the follows principle was proclaimed: all taxes should be imposed with the consent of the Parliament. In 1689 the Parliament received the right of approval of all revenues and expenditures.

Specific features of the budget:

1) a budget is a special form of redistribution based on seizure a part of GDP in favor of the state, it helps to meet the demand of the administrative units and population for public goods;

2) a budget is an important mechanism of implementation of the needs at each historical stage of development;

3) a budget is a system of centralized funds in the framework of public and municipal finance, which has a specific set of quantitative and qualitative characteristics, such as- the concentration of a substantial amount of resources (from one third to two thirds of GDP in developed countries), the scale of inter-territorial redistribution of resources; redistribution and equalization of households' incomes;

4) the budget and fiscal policy facilitate the implementation of the tasks of the state economic policy.

The budget is revealed through its functions:

- regulatory;
- fiscal;
- control.

The most important feature of the budget is its balance. A balanced budget means that all planned expenditure is covered by revenues.

The budget deficit reflects the excess of expenditure over income. If the budget is in deficit for several years, the government has to attract external or internal resources to cover it. The government can take credits and loans from foreign countries and international organizations, at the same time it can borrow money from its own population and business entities. The government can reduce budget expenditures to overcome the deficit. This path is the easiest, but for the population and economy is very painful. Another way to overcome the deficit is the issue additional money. Finally, the government may try to find additional sources of budget revenues. It can sell state assets or increase taxes, but this way is extremely unpopular and painful for the population and business structures.

Federal Budget of the Russian Federation is shown in table 4.

Table 6.1

Federal Budget of the Russian Federation (billion roubles)

	2012	2013	2016	2017
Revenues	12855.5	13019.9		
of which:				
profit (income) tax of organizations	375.8	352.2		
value added tax:				
for goods (works, services) sold on territory of the Russian Federation	1886.1	1868.2		
for goods, imported on territory of the Russian Federation	1659.7	1670.8		
excise on goods (products):				
produced on territory of the Russian Federation	341.9	461.0		
imported on territory of the Russian Federation	53.4	63.4		
tax, dues and regular payment for natural re-sources usage	2442.8	2554.8		
revenue from external economic activities	4962.7	5011.0		
revenue from use of state and municipal property	543.3	348.0		
payments for natural resources usage	101.3	245.1		
uncompensated revenue	64.6	51.1		
Expenditures	12895.0	13342.9		
of which on:				
objectives affecting the state as a whole	809.9	850.7		
state and municipal debt service	320.0	360.3		
national defence	1812.4	2103.6		
law enforcement and state security	1843.0	2061.6		
national economy	1968.5	1849.3		
of which on:				
fuel and energy complex	107.8	19.5		
agriculture and fishery	148.8	219.7		
transport	339.7	258.4		
public road system (road funds)	442.4	504.5		
communications and informatics	41.3	41.9		
scientific research for national economy	229.1	265.3		
other fields of national economy	526.6	399.4		
housing – communal utilities	228.8	177.5		
social-cultural arrangements	5290.5	5247.5		

general inter-budget transfers between budgets of constituent entities of the Russian Federation and municipal entities	599.4	668.1		
Profit, deficit (-)	-39.4	-323.0		

## Questions and Problems on Topic # 6

1. (IIK – 2, Y1, B1) Fill the table 6.1, make conclusions on structure of Russian budget during the period 2013 – 2017

2. (IIK – 2, Y1, B1) Are the following statements true (T) or false (F)?

- a) A unitary state generally is more centralized than a federal one.
- b) In a unitary state one government makes all fiscal decisions.
- c) Federalism is a compromise between a unitary state and complete decentralization.
- d) Only in federalism can different governments exist independently of one another.
- e) The goal of decentralization of government decision making is to increase technical efficiency.

3. (IIK – 2, Y1, B1) What are the main dimensions of fiscal decentralization?

a) Devolution \_\_\_\_\_

\_\_\_\_\_

b) Delegation \_\_\_\_\_

\_\_\_\_\_

c) Deconcentration \_\_\_\_\_

\_\_\_\_\_

4. (IIK – 2, Y1, B1) Which state functions belong to which state level according to the traditional theory of multilevel government? Please write an X to the appropriate box.

Function	Central	Subnational
Macroeconomic stabilization		
Income redistribution		
Resource allocation		

**5. (ПК – 2, У1, В1) Note the differences between intergovernmental transfers and own revenues, and intergovernmental transfers and loans.**

What is the difference between vertical and horizontal imbalance?

*Vertical fiscal imbalance* occurs when

---

*Horizontal fiscal imbalance* occurs when

---

**6. (ПК – 2, У1, В1) What are differences between transfers and loans**

**7. (ПК – 2, У1, В1) What are differences between transfers and own revenues**

**8. (ПК – 2, У1, В1) Why people taking interest in Public Financial Activities**

**9. (ПК – 2, У1, В1) Public finance consists of the following subdivisions:**

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

d) \_\_\_\_\_

e) \_\_\_\_\_

**10. (ПК – 2, 31) What is the state budget?**

**11. (ПК – 2, 31) What are the prerequisites for the formation of public finances?**

**12. (ПК – 2, 31) What are public finances in the context of non-democratic (monarchy, dictatorship, oligarchy) political systems?**

**13. (ПК – 2, У1, В1) What are the differences between public and government needs?**

**14. (ПК – 2, У1, В1) What determines the volume, structure, and orientation of public finances?**

**15. (ПК – 2, У1, В1) What are the functions of public finances?**

**16. (ПК – 2, У1, В1) What is the financial policy of the state?**

## TOPIC 7. WELFARE THEORY

*Questions for the lectures and the seminars:*

*Equity and Efficiency. Aspects of Pareto Efficiency, The compensation criteria of the Kaldor-Hicks. Social Welfare Functions, Inequality and Poverty, Income redistribution in society, Poverty Measures. Models of public welfare. Consumer basket.*

Welfare is a state of well-being and prosperity associated with wealth and income.

Economic theory of well-being or welfare economics is the part of modern economic theory, which examines the content of individual and public welfare, determines the factors that influence the well-being of society.

One of the major problems of welfare economics is the following question: who can provide the best combination of individual interests and the public good.

### ***Pareto-efficiency and the compensation criterion***

Pareto optimum means such distribution of resources and finished products, in which there is no option of redistributing that can improve, at least, the position of one individual and does not worsen the position of others.

The concept of Pareto-improving is also used to determine the Pareto-efficiency.

Pareto-improvement occurs when the change in the economic situation leads to the advancement of at least one individual without deterioration of the situation of some other individual (figure 7.1).

Consider a move from economic state  $U_1'U_2'$  to state  $U_1''U_2''$ . This is defined as a Pareto-improvement if it makes some consumers strictly better-off and none worse-off.

If we are in point A at the curve  $U_1'U_2'$ , a Pareto improvement is considered to be in the shaded area (ABC).

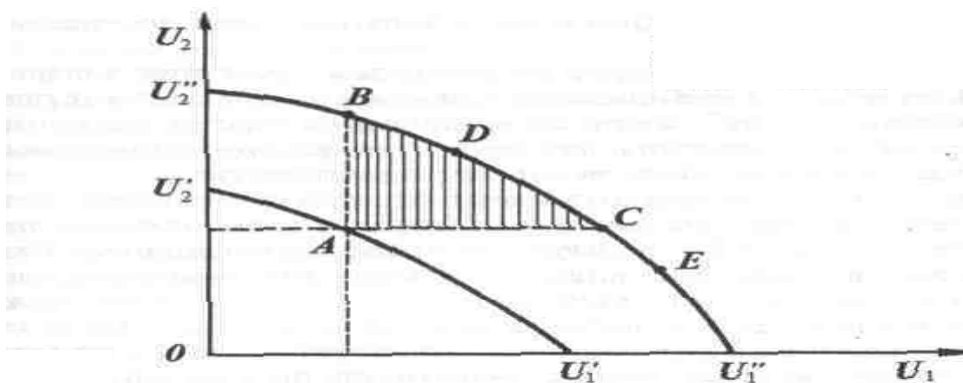


Figure 7.1. Pareto-improvement



The Pareto criterion was introduced into economics by the Italian economist Vilfredo Pareto at the beginning of the 20th century. This was during a period of reassessment in economics during which the concept of utility as a measurable quantity was rejected. Alongside this rejection of measurability, the ability to compare utility levels between consumers also had to be rejected. Pareto efficiency was therefore constructed explicitly to allow comparisons of allocations without the need to make any interpersonal comparisons of utility. As will be seen, this avoidance of interpersonal comparisons is both its strength and its main weakness.

To assess Pareto efficiency, it is helpful to develop the concept in three stages. The first stage defines the idea of making a Pareto improvement when moving from one allocation to another. From this can be constructed the Pareto preference order which judges whether one allocation is preferred to another. The final stage is to use Pareto preference to find the most preferred states which are then defined as Pareto efficient.

Hence, the welfare increases with increasing utility received by an individual, if the utility of all other members of the society does not reduced. However, this approach to the assessment of effectiveness turns to an incomplete criterion of Pareto.

The attempt to overcome the incompleteness of the criterion was undertaken by Kaldor (1939) and Hicks (1940). They promoted the idea of compensation in cases of deviation from the Pareto optimum. The Kaldor-Hicks criterion or the compensation criterion says that an increase of economic efficiency takes place in those cases when the individual who has received additional benefits compensates losses and gains benefit as compared to the initial situation. This criterion does not include the performance compensation in reality. It is generally enough to have the potential of full compensation. Therefore, the criterion of the Kaldor-Hicks is often called the criterion of potential Pareto improvement.

### ***Income and poverty***

Income is the additional resources a consumer receives over a given period of time. The reference to a time period is important here since income is a flow, so the period over which measurement takes place must be specified. Inequality of income means that some households have higher incomes than others. Inequality of income is a basic source for an inequity in welfare. The market mechanism leads to an uneven distribution of income. There are groups of people who don't have any means of subsistence.

Before measuring poverty, it is first necessary to define it. It is obvious that poverty refers to a situation involving a lack of income and a consequent low level of consumption and welfare.

Poverty exists when some households are too poor to achieve an acceptable standard of living. The essential feature of poverty is the possession of fewer resources than are required to achieve an acceptable standard of living. There is the concept of minimum needs. A bundle of goods and services that is seen as representing the minimum needs for the household is identified. The exact bundle will differ between households of varying size but typically involves only very basic commodities.

The concept of absolute poverty assumes that there is some fixed minimum level of consumption that constitutes poverty and is independent of time or place. Such a minimum level of consumption can be a diet that is just sufficient to maintain health and limited housing and clothing.

Under the concept of absolute poverty, if the incomes of all households rise, there will eventually be no poverty.

Relative poverty has also been defined in terms of the ability to “participate” in society. Poverty then arises whenever a household possesses insufficient resources to allow it to participate in the customary activities of its society.

The poverty level can decrease if there is a transfer of income from a richer household to a poorer household.

To solve the problem of poverty the government creates public social security system, which provides benefits to the unemployed, the disabled, and pensioners. This is done through the mechanism of public income redistribution.

### ***Functions of public welfare***

Function of public welfare (W) represents the dependence of the welfare of society from welfare (total utility) of individuals. A social welfare function permits the evaluation of economic policies that cause redistribution between consumers.

Although the concept of a social welfare function is a simple one, there are numerous difficulties on the path between individual utility and aggregate social welfare.

The function determining the aggregate level of welfare is denoted by W.

U is the utility of different individuals.

$$W=f(U_1, U_2, \dots, U_n)$$

This is termed a Bergson-Samuelson social welfare function. Basically, given individual levels of happiness it imputes a social level of happiness.

An alternative interpretation of the social welfare function is that it captures some ethical objective that society should be pursuing. Here the social welfare function is determined by what is viewed as the just objective of society. There are two major examples of this.

The utilitarian philosophy aiming to achieve the greatest good for society as a whole translates into a social welfare function that is the sum of individual utilities. In this formulation, only the total sum of utilities counts (1), so it does not matter how utility is distributed between consumers in the society (figure 7.2.).

$$W = U_1 + U_2 + \dots + U_n. (1)$$



Figure 7.2. The utilitarian welfare function

Although this approach to the social welfare function is internally consistent it is still not entirely satisfactory.

Alternatively, the Rawlsian philosophy caring only for the worst-off member of society leads to a level of social welfare determined entirely by the minimum of that in society (2). With this objective, the distribution of utility is of paramount importance. Gains in utility achieved by anyone other than the worst-off consumer do not improve social welfare (figure 7.3.)

$$W = \min (U_1, U_2, \dots, U_n) (2)$$

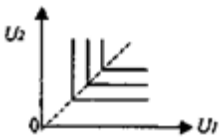


Figure 7.3. The Rawlsian welfare function

The utilitarian approach requires that the utilities of the consumers are added in order to arrive at the total sum of social welfare. The Rawlsian approach necessitates the utility levels being compared in order to find the lowest.

## Questions and Problems on Topic # 7

---

1. (IIK – 2, 31) What is welfare economics?<sup>4</sup>
2. (IIK – 2, 31, Y1) Explain the following concepts and, using an Edgeworth box, clearly label points to demonstrate each of them.
  - (a) Weak Pareto improvement

<sup>4</sup> [www.staff.city.ac.uk/n.j.devlin/westudy%20questions2.doc](http://www.staff.city.ac.uk/n.j.devlin/westudy%20questions2.doc)

- (b) Strong Pareto improvement
- (c) Pareto inferior
- (d) Pareto superior
- (e) Pareto optimal
- (f) Pareto indifferent
- (g) Pareto non-comparable
- (h) Contract curve.

**3. (IIK – 2, 31, Y1) Explain what is meant by the following and what insights they contribute in welfare economics:**

- (a) Consumer surplus
- (b) Kaldor's and Hicks' compensation tests
- (c) Utility possibility frontier
- (d) Bergsonian social welfare function
- (e) Arrow's Impossibility Theorem

**4. (IIK – 7, 31, Y1) Distinguish between technical efficiency and economic efficiency in production.**

**5. (IIK – 7, 31, Y1) Is there a tradeoff between equity and efficiency? Discuss.**

**6. (IIK – 7, 31, Y1) What is the relationship between the utility possibility frontier, the grand utility possibility frontier and the contract curve in a consumption Edgeworth box?**

**7. (IIK – 7, 31, Y1) What conditions hold at the point of 'constrained economic bliss', and how might such a point be established?**

**8. (IIK – 7, 31, Y1) Using diagrams to illustrate your answer, describe and explain the conditions under which an efficient allocation of the factors of production is achieved.**

**9. (IIK – 7, 31, Y1) Briefly discuss Sen's social welfare functional approach and its differences w.r.t. the Arrowian social welfare function approach.**

**10. (IIK – 7, 31, Y1) Which axioms characterize utilitarianism in a social welfare functional approach?**

## **TOPIC 8. NON-PROFIT ORGANIZATIONS**

*Questions for the lectures and the seminars:*

World non-profit organizations. The ONU. Its structure, functions. The other non-profit organizations in the world. The structure of non-profit organizations in Russian Federation. Non-profit organization's activity.

### ***Non-profit organization***

A non-profit organization (NPO) or not-for-profit organization is an organization that uses surplus revenues to achieve non-commercial goals.

The main sources of income of non-profit organizations include:

- contributions of members of the organization;
- receipts from the founders;
- voluntary contributions and donations;
- funds from the state budget;
- revenue from the sale of goods and services;
- dividends (income, interest);
- income derived from the property of the nonprofit organization;
- other services not prohibited by law.

Functioning of non-profit organization associated with the implementation of certain expenses. They can be divided into the following types:

- cost of implementing primary statutory activities (administrative costs and costs for implementation of programs and activities);
- expenses related to business activity;
- loss and write-off.

### ***International non-profit organizations***

International non-profit organizations are intergovernmental and non-governmental associations, created on the basis of an international agreement (the Charter, Statute or other document) in order to promote the solution of international problems and develop international cooperation.

There are international intergovernmental organizations and international non-governmental organizations, as well as global and regional international organizations.

International non-profit organizations are created for different purposes such as cooperation, assistance, cultural exchange, protection of interests, research, charity, socio-political, socio-

economic, health, education, ecology and consulting. As a rule, the goals of the international organizations cannot be solved within the same country.

There are several aims of international non-profit organizations:

- organizations contributing to cooperation;
- organizations with the aim of development;
- international organizations contributing to peacekeeping and cultural ties between countries.

The main types of international non-profit organizations are:

- international political organizations;
- international economic organizations;
- international charitable organization;
- humanitarian organizations;
- international organizations in the sphere of health care; education and social protection;
- international environmental organizations, etc.

In addition, we should not forget about international non-governmental organizations, the number of non-governmental organizations exceeds the number of international governmental organizations.

### *The United Nations*

The United Nations (UN) is an intergovernmental organization established in 1945 to promote international co-operation. Nowadays, there are 193 United Nations member states.

The UN has six principal organs: the General Assembly (the main deliberative assembly); the Security Council (for deciding certain resolutions for peace and security); the Economic and Social Council (ECOSOC) (for promoting international economic and social co-operation and development); the Secretariat (for providing studies, information, and facilities needed by the UN); the International Court of Justice (the primary judicial organ); and the United Nations Trusteeship Council (inactive since 1994). UN System agencies include the World Bank Group, the World Health Organization, the World Food Program, UNESCO, UNCTAD, UNIFEM, UNICEF, etc.

Independent specialized organizations in the UN are based on intergovernmental agreements and linked to the UN by cooperation agreement. These specialized institutions include: the World Meteorological Organization, the World Health Organization, the World Intellectual Property Organization, the Universal Postal Union, the International Labour Organization, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Industrial

Development Organization (UNIDO). Among the specialized independent organizations of the UN special position is occupied by the World Bank and the International Monetary Fund (IMF).

There are international non-profit organizations, which are not included in the UN system. Among them, there are the WTO, the EBRD, the Union of red cross and red Crescent societies, the Interpol, the international Olympic Committee, the Council of Europe and other.

## **Questions and Problems on Topic # 8**

---

- 1. (ПК – 2, 31, Y1) What is the scale and structure of the nonprofit sector?**
- 2. (ПК – 2, 31, Y1) How can you explain the existence and behavior of nonprofit organizations?**
- 3. (ПК – 2, 31, Y1) How do nonprofits obtain funding and how do they manage resources?**
- 4. (ПК – 2, 31, Y1) What is the history of the nonprofit sector?**
- 5. (ПК – 2, 31, Y1) Describe State–nonprofit relations, point on peculiarities**
- 6. (ПК – 2, 31, Y1) Identify key intellectual traditions of nonprofit sector research**
- 7. (ПК – 2, 31, Y1) Describe and discuss the key terms of the nonprofit sector:**
  - a) charity
  - b) civil society
  - c) giving
  - d) nongovernmental organization s nonprofit organization
  - e) nonprofit sector
  - f) philanthropy
  - g) social capital
  - h) third sector
  - i) voluntary association
  - j) volunteering

## **EXAMPLES OF MULTIPLE CHOICE TESTS AND ASSIGNMENTS**

### **1. The government enforces property rights by**

- a. requiring property owners to pay property taxes.
- b. providing police and courts.
- c. forcing people to own property.
- d. providing public parks and recreation facilities.

### **2. Private property rights involve**

- a. the right to exclusive use of the property.
- b. legal protection against those who would seek to use or abuse the property without the owner's permission.
- c. the right to transfer, sell, exchange, or mortgage the property.
- d. all of the above.

### **3. When property rights are clearly defined and enforced, private owners will**

- a. use their property for selfish ends because they have little or no incentive to consider the desires of others.
- b. develop and direct their property toward uses that others value highly because the market will generally reward them for doing so.
- c. have little or no incentive to take care of their property or conserve it for the future.
- d. be unable to derive personal gain if they are sensitive to the desires of others when deciding how to use their property.

### **4. Which of the following will most likely occur under a system of clearly defined and enforced private property rights?**

- a. Resource owners will tend to abuse resources and use them selfishly.
- b. Resource owners will conserve vital resources for the future, particularly if they expect the resource to increase in value.
- c. Resource owners will ignore the wishes of others, including those who would like to use the resource that is privately owned.
- d. Resource owners ignore the wishes of others since there is little incentive to employ privately owned resources in ways that are beneficial to others.

### **5. Economic debates that focus on the distribution of a nation's income are generally associated with which basic economic question?**

- a. How is production going to be organized?
- b. What goods will be produced?
- c. What resources will be utilized in the productive process?
- d. For whom will the goods be produced?

### **6. The reason that so many economic activities create externalities is that**

- a. free riders exist
- b. third parties become involved in decision making
- c. special-interest groups lobby for them
- d. property rights are poorly defined
- e. government failure prevents them from being halted



- 7. If the social cost of supplying a good or service is higher than the private cost, then**
- the production of the good or service should be subsidized
  - the price of the good or service is too low
  - the price of the good or service is too high
  - obligatory controls are the only way to correct the situation
  - the good or service is a public good

**8. If the social cost of producing chickens is greater than the private cost, then we can be sure that**

- a positive externality exists
- chicken is healthful and more should be produced
- a negative externality exists
- the price of chicken is too low
- chicken productions should be subsidized

**9. Pollution is an example of market failure because**

- the equilibrium price is higher than the efficient price
- the equilibrium price is less than the efficient price
- property rights are poorly distributed
- the market does not produce enough of the good
- those who suffer from pollution are compensated outside the market

**10. All of the following are goods for which property rights are hard to identify except**

- a river running along a field of corn
- the atmosphere over a field of corn
- crows that eat the corn on the field
- the ozone layer
- a field of corn

**11. A pure public good is characterized by:**

a) both non-rivalry in use and failure of exclusion	b) either non-rivalry in use or failure of exclusion
c) non-rivalry in use and failure of exclusion	d) rivalry in use and ability of exclusion

**12. North Sea fishing stocks would be labeled a:**

a) private good	b) pure public good	
c) toll good	d) club good	e) common property resource

**13. If a good is characterized by easy exclusion but many may concurrently use it without reducing the amount available for others, the good is a:**

a) private good	b) common property resource	
c) toll goods	d) public good	e) independent good

**14. Which of the following embodies most of the principles of a pure public good?**

a) Taking the Advanced Placement Economics Examination	b) Street lights	
c) A new car	d) A new economics book	e) All of the above

**15. A car is**

a. common good.	b. mass medium.	c. public good.	d. private good.
-----------------	-----------------	-----------------	------------------

**16. Which of the following is a rival public good?**

a) forest.	b) hospital.	c) both of the above	d) none of the above.
------------	--------------	----------------------	-----------------------

**17. The “Tragedy of the Commons” is**

a) discovery of corruption among members of the British parliament.	b) exhaustion of resources that are collectively owned.	c) outrageous crime in a Boston public park.	d) play by Arthur Miller.
---	---	--	---------------------------

**18. The creation of a “club” public good implies**

a) exclusion of some people from using equipment such as roads or bridges.	b) formation of a national sport team.	c) individual membership to use municipal facilities.	d) open door policy in a country club.
--	--	---	--

**19. Common property**

a) is owned by specific people.	b) is inexhaustible	c) refers strictly to land resource.	d) refers to goods “owned” by society at large and freely usable by anyone.
---------------------------------	---------------------	--------------------------------------	---

**20. In a public goods context, it is difficult to measure impact on real income because**

a) public goods are generally free to the public.	(d) inflation decreases the value of the good
(c) it is hard to measure how people value the public good.	(b) they make up a small percentage of total GDP.

**QUESTIONS FOR FINAL TEST (EXAM)**

Question	Competence
1. Public Sector of an Economy	PC -2
2. Forms and methods of interactions between a private sector and a state	PC -2
3. Characteristics of a standard microeconomics model	PC -2
4. Market failures	PC -2
5. State failures	PC -2
6. Functions of public finance	PC -2
7. A structure of public finance in Russia	PC -2
8. Musgrave's three-function framework	PC -2
9. Characteristics of public goods	PC -2
10. Classification of goods in Economics	PK - 7
11. The balance in the production of public goods	PK - 7
12. Lindahl equilibrium	PK - 7
13. Characteristics of model of general economic equilibrium	PK - 7
14. The Samuelsonian provision condition	PK - 7
15. Collective action. M. Olson's conceptions of selective incentive	PK - 7
16. Sources of Government Revenue	PK - 7
17. Specific functions of the state in a market economy	PK - 7
18. Taxes. Tax elements.	PC -2
19. Non-taxes	PC -2
20. Public entrepreneurship	PC -2
21. Intergovernmental transfers (for subnational governments	PC -2
22. Criteria for Evaluation of Tax Systems: principles of taxation	PC -2
23. Procedures for establishing and imposing taxes	PC -2
24. A system of taxes	PK - 7
25. The relative equality of tax liabilities	PK - 7
26. Horizontal equity. Vertical equity	PK - 7
27. The equivalence principle	PK - 7
28. Principle "ability to pay".	PK - 7
29. Economic neutrality	PK - 7
30. The organizational simplicity	PK - 7
31. Flexibility of taxation	PK - 7
32. The transparency of the tax system	PK - 7
33. Tax incidence,	PK - 7
34. Optimal tax theory	PK - 7
35. The effect of taxation on labor supply and savings	PK - 7
36. Shifting of Tax burden	PK - 7

## **BIBLIOGRAPHY**

1. Alexander Kalb Public Sector Efficiency (2010)  
<https://link.springer.com/book/10.1007/978-3-8349-8697-9>
2. Efimova L. PUBLIC FINANCE: INTERNATIONAL AND RUSSIAN APPROACHES. Tutorial). Фонд электронных образовательных изданий ННГУ. Рег.номер (Registration Number) 1601.17.07
3. Gareth D. Myles Public Economics Cambridge University Press 1995
4. Grinevich Youlia A.. ECONOMICS OF THE PUBLIC SECTOR. Tutorial .) Фонд электронных образовательных изданий ННГУ. Рег.номер (Registration Number) 1528.17.07
5. Jean Hindriks and Gareth D. Myles Intermediate Public Economics 2004  
<http://czx.xmu.edu.cn/download/20100225113146416.pdf>
6. John Cullis and Philip Jones Public Finance and Public Choice Oxford University Press 1998
7. Joseph E. Stiglitz Economics of the public sector/ second edition 1988
8. Jürgen G. Backhaus, Richard E. Wagner Handbook of Public Finance (2005)  
<https://link.springer.com/book/10.1007/b109135>
9. Lhawang Ugyel Public Administration of Bhutan (2016)  
<https://link.springer.com/book/10.1007/978-3-319-40280-2>
10. McConnell Campbell R. Economics – Principles, Problems, and Policies / Campbell R., McConnell, Stanley L. Brue. – 13 th ed., 1996
11. René Andeßner, Dorothea Greiling Public Sector Management in a Globalized World (2017) <https://link.springer.com/book/10.1007/978-3-658-16112-5>
12. Toshihiro Ihori Principles of Public Finance (2017)  
<https://link.springer.com/book/10.1007/978-981-10-2389-7>

### **c. Internet Resources**

1. Russia in figures. – URL:  
[http://www.gks.ru/wps/wcm/connect/rosstat/rosstatsite/main/publishing/catalog/statisticCollections/doc\\_1135075100641](http://www.gks.ru/wps/wcm/connect/rosstat/rosstatsite/main/publishing/catalog/statisticCollections/doc_1135075100641) .
2. The official web site of Federal State Statistics Service –  
URL: [http://www.gks.ru/wps/wcm/connect/rosstat\\_main/rosstat/en/main/](http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/en/main/)
3. The official web site of Government of Russian Federation – URL: <http://government.ru/en/>

4. The official web site of Organization for Economic Co-operation and Development (OECD) – URL: <http://www.oecd.org/>
5. The official web site of the Central Bank of Russian Federation – URL: <http://www.cbr.ru/eng/>
6. The official web site of the International Monetary Fund – URL: <http://www.imf.org/>
7. The official web site of the Ministry of Finance – URL: <http://old.minfin.ru/en/>
8. The official web site of the World Trade Organization – URL: <http://www.wto.org/>
9. The official web site of World Bank – URL: <http://www.worldbank.org/>
10. The official web site of the UNCTAD (United Nations Conference on Trade and Development) – URL: <http://www.unctad.org/>
11. The official web-site of Federal State Statistics Service. – URL: <http://www.gks.ru> .
12. The official web-site of Territorial Body of Federal State Statistics Service in Nizhny Novgorod region. – URL: <http://nizhstat.gks.ru/> .

**Юлия Анатольевна Гриневич**

**Людмила Анатольевна Ефимова**

**Основы экономики общественного сектора**

**Public Economics: Basic Concepts**

Учебное пособие

Федеральное государственное автономное  
образовательное учреждение высшего образования  
«Национальный исследовательский Нижегородский государственный университет им.  
Н.И. Лобачевского».  
603950, Нижний Новгород, пр. Гагарина, 23.