THE MAIN THEORIES OF THE PROVISION OF PUBLIC GOODS: HISTORY AND MODERNITY

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The article discusses the history and modern theories of public goods provision, which are a key aspect of the socio-economic system of states. Public goods, such as defense, free education, street lighting, and others, are distinguished by the fact that their consumption is available to all members of society at the same time and they do not compete with each other. It is determined that in the 19th century, with the emergence of new economic and social theories, new approaches to the provision of public goods emerged. Researchers such as Schaeffe and Pigou made a significant contribution to understanding the role of the state in this process by considering public goods in the context of the public and private sectors of the economy. It is noted that in the second half of the 19th century, as well as in the 20th century, new theories emerged that became important for understanding the production and distribution of public goods. The key attention is focused on the study of the history and modernity of theories of public goods provision, as well as their application in modern conditions. In general, the article highlights the significance of the historical development of the theory of public goods and its impact on modern economic and political practice, emphasizing the need for continuous development and adaptation of this theory to the changing conditions of society. A comparative analysis of the scientific literature of different conceptual views and approaches to the problem of public goods provision and their distribution is presented.

Key words: public goods; non-rivalry; non-excludability; classification of public goods; behavioral economics; efficiency; state.

INTRODUCTION

The creation and provision of public goods to society has always been an urgent problem for states. Today, in the context of the formation of a digital society, these problems manifest themselves in more complex forms. Since not all countries are at the same level in their socio-economic development, therefore both political and economic mechanisms and ways to ensure their effectiveness in providing public goods have their own characteristics and differences. We think that in order to reveal the essence of these phenomena, first of all we must...
identify the essence and content of the public good, as well as the theoretical basis for its provision.

LITERATURE REVIEW

Scientific research into conceptual views of public goods has multidirectional methodological foundations. It should be noted that the scientific approach to substantiating the theoretical foundations of the creation and distribution of public goods was considered from different prisms. The first theoretical justification for the formation of public goods was received even before the classical period in the works of philosophers who discussed the ownership of public goods. During the classical school period, public goods and their redistribution became the cornerstone of the thinking of economists. The main problem, perhaps, was the interpretation of the category of definition itself, which determines the significance of this term. Approaches of A. Smith [9] and D. St. Mill [1] were formed on the basis of the free market in which these goods were created. Capitalist relationships presupposed a market choice between the subjects of economic agents and counterparties. Despite the free relationships between the subjects of economic relations, the concentration and distribution of public goods evokes a critical understanding and a fair approach to a rational understanding of its purpose. Scheffe and Pigou divide the formation of a public good into the forms of its creation. In their opinion, the creation of public goods is the prerogative of the state. K. Menger and W. Jevons believe that the basis of public goods is subjective utility. In our opinion, subjective utility cannot always form public goods, especially if these goods are created outside of supply and demand. If the above scientists assumed the creation of public goods as a result of market relations and free choice, then the Marxist approach concentrated public goods through the means and methods of the social mode of production.

Various views of neo-institutionalists, in particular T. Eggertson, J. Hodgson and K. Arrow [5], and then J. Bunchanan, G. Tulloch, M. Olson [10], D. Muller, R. Tollison, W. Niskaken and F. Hayek, considered the distribution of public goods as the social sustainability of the state in providing the population with various benefits that satisfy their consumer preferences.

In our opinion, a special contribution to the formation and distribution of public goods can be considered in the works of S. Kuznets in income inequality. We agree with him that when the Lorenz curve changes, social tension in the state can have detrimental consequences [19]. If we look at income inequality from a different prism, the result is that the distribution of goods is formed by various economic agents and counterparts. Despite the ongoing debate about the forms and methods of income distribution, an optimal system that satisfies various categories has not yet been developed.

AIMS AND OBJECTIVES

To study the history and main modern theories of public goods provision, as well as their application in modern conditions.

METHODOLOGY AND RESEARCH METHODS

Collecting, organizing, analyzing and interpreting scientific facts and phenomena of public goods at different historical stages, as well as conducting original, creative research to study key developments in the provision of public goods and the application of these social services in countries with different levels of development.

DATA ANALYSIS AND RESULTS

In general, the article highlights the significance of the historical development of the theory of public goods and its impact on modern economic and political practices, emphasizing the need for constant development and adaptation of this theory to the changing conditions of society.

Public goods are goods whose consumption is available simultaneously to all members of society. These benefits include defense, free education, street lighting, and public access to parks, museums, sports fields, roads, television, and more.

Public goods are non-rival and they are non-excludable, that is, a public good is characterized by non-rivalry and non-excludability. Generally, public goods are provided by government and philanthropic organizations. The private sector is not interested in providing public goods, since their goal is to make a profit. However, they are obliged by social responsibility that they, too, to some extent participate in this process. They are highly characterized by the properties of competitiveness and exclusivity.

They distinguish a mixed public good, in the presentation of which competitiveness and exclusivity are manifested to a limited extent. The grouping of public goods of this approach can be summarized in the general diagram presented below (Fig. 1).

By scale, public goods are classified as local, national and global. In essence, global public goods do not differ from local and national ones, since they are also characterized by non-exclusivity and non-competition.

COVID 2019, global climate change and other problems of a universal nature are contributing to an increase in demand for global public goods (Fig. 2).

As stated above, regardless of the scale at which a public good is provided, it is characterized by non-exclusivity and non-competition. Since public goods are consumed by the entire society and at the same time the costs of providing the good to an additional consumer remain unchanged.
It should be said that different public goods are manifested to varying degrees and in different forms. If public goods are considered in this context, they can be formulated as follows (Fig. 3).

As can be seen from the diagram, different public goods are manifested to different degrees, different goods are combined in different forms. For example, national defense appears in the form of «pure public goods», roads, museums, parks, libraries in the form and «overloaded public goods», and swimming pools, stadiums, gyms in the form of «club goods».

Pure public goods are characterized by another qualitative feature, such as indivisibility. So, as a pure public good is consumed jointly and entirely. In this case, all consumers consume the same amount of the good. An individual consumer cannot make any additional demands on the good provided to him and therefore his need cannot form additional demand, that is, an individual consumer does not influence the demand provided by a public good.

From the point of view of the law of diminishing marginal utility, the demand for a pure private good and the demand for a pure public good, in both cases the demand curve has a negative slope. When a private good is provided by a consumer, the aggregate demand for the good is determined by horizontal summation of the volume of individual demand, and when a pure public good is provided to consumers, the aggregate demand for the good is determined by vertical summation of the volume of individual demand.

Public goods are provided to society through the market and the state. When providing public goods
through the market, methods are used that exclude forced participation in financing. These methods are:
- Mutual financing
- Free rider exception
- Subsidization

When providing public goods through the state, methods are used that involve forced participation in financing. The provision of public goods is free of charge and fully financed by the state. But the implementation of financing must have its limits. Therefore, the efficiency of the volume of provision of public goods is determined. It should be noted that the state does not always manage to ensure the efficiency of financing the provision of public goods, which contributes to the equitable distribution and use of public goods. The reasons for such ineffective decisions by the state are imperfections in the political process, insufficient information necessary to make adequate decisions, limited control over the bureaucracy, etc. Minimizing losses from ineffective decisions and increasing their effectiveness requires a special approach to solving them.

It should be said that the creation and provision of public goods to society and ensuring their effectiveness is a very difficult task for the state and therefore the study of this area is always extremely challenging. Today, this area of science has established itself as an integral scientific system, which has gone through a long historical path in its development.

Economic good has been studied since ancient times. The works of Plato and Aristotle reveal their own visions of economic and social good. Plato considered the state, which acts as a system-forming factor in the distribution of economic, including public, goods. Unlike Plato [7], Aristotle [8] analyzed and evaluated the public good as a product or result of a private good. A. Smith [9] and D. St. Mill [1] gave the main role to the free market when they considered the relationship between private and public goods. They noted that a market operates in conditions of free competition and provides a combination of private and public goods, while the state plays a passive role or the role of a passive regulator. According to J. Mill [1], the market is the main and only system for providing public goods. In this case, the state assumes the function of public control. J.S. Mill [1], argues that it is the government’s responsibility to build and maintain lighthouses, install buoys, and do other things that ensure safety of navigation. It is impossible to force a ship that has benefited from the light of a lighthouse to pay a toll because it has benefited. For this reason, no one would build a lighthouse for personal gain, unless he received compensation through a forced tax imposed by the state [1].

Proponents of Marxism argue that the state is the only producer and manager of public goods. And today neo-Marxists are adherents of this approach. Although, among Marxists there are also representatives who allow the provision of public goods to society, which are produced as a result of public-private cooperation.

In the second half of the 19th century, the economies of Western countries grew rapidly and, in parallel with these processes, the role of states in socio-economic processes grew. At this stage of development of European countries, new scientific approaches to the provision of public goods appear. Representatives of these schools (Cheffe, Pigou) [3], view public goods in two ways, that is, public goods are provided by the state, and private goods are provided by the free market.

In the second half of the 19th century, a new theory arose that, according to this theory, subjective utility is based on supply and demand. Developing this theory, marginalists developed an entire concept that began to be used in the budget policy of Western countries (K. Menger and W. Jevons).

At the end of the 19th century, A. Marshall, revealing the essence and content of public goods, argues that a specific community provides public goods in a specific place and at a certain time to a specific consumer [2]. Thus, he specified and localized the public goods provided by the state to the consumer.

In an unregulated market economy, almost all leading scientific economic centers shared the opinion of the study of public goods, as they deeply understood the place and role of public goods in the socio-economic system of society. Satisfying the needs of the country’s citizens with public goods is gradually becoming one of the main functions of the state. Thus, the theory of public goods is formed and approved as an independent concept in the system of economic sciences.

At the beginning of the 20th century, Pigou made a significant contribution to the theory of public goods [3]. He introduced new concepts into scientific circulation, which were subsequently adopted by all economic schools. External effects (externalities) are the impacts of some economic entities on the results of the activities of other market entities, while the utility of some market entities obtained as a result of the activities of other entities is formed outside the price market mechanism.

Developing Pigou’s theory of public goods and other existing theories [3], P. Samuelson [4] in the 1950s created a holistic theory of public goods. He gave a specific definition of a public good, the costs of production and distribution of which are borne by the state. It has the following properties: non-competitiveness (non-rivalry), due to the availability of such a good to everyone; non-excludability, that
is, it is almost impossible to limit consumers' access to such a good; indivisibility, therefore, the individual cannot choose consumption himself [4].

Representatives of institutionalism such as G. Myrdal, T. Veblen, J. Cottons, explore the “public good”, highlighting its two features. Firstly, its use cannot be limited and secondly, it is impossible to counteract the use of other people in the consumption of public goods. The provision of public goods to society is not regulated by the market mechanism, so they are used by all members of society. In this case, in the production and provision of public goods, deviations from participation in the formation of the budget for public goods arise, i.e., the “free rider” problem arises. Therefore, this problem must be solved on the basis of the rational provision and use of public goods.

Although non-institutionalists T. Eggertson, J. Hodgson et al., take the same view, while they argue that public all citizens of the country consume goods and such satisfaction costs them no additional costs.

In 1951, the famous American scientist K. Arrow formulated several conditions that any reasonable decision-making procedure must satisfy. He mathematically proved the impossibility of democracies. This proof was formulated in Arrow's “impossibility theorem,” namely, that there is no general rule for classifying situations at the societal level that is compatible with an unreasonable system of individualistic ethical restrictions on the social welfare function [5]. According to the conclusions of K. Arrow, a market system, that is, a free market, may not provide optimal distribution of resources.

One of these scientific approaches is “public choice theory,” which was formed in the middle of the 20th century. The founders of the theory of public choice are: M. Olson [10], Piketty T. [14], Afonso, A., Schuknecht, L., & Tanzi V. [15] etc.

Economists and politicians always have two main tasks to provide public goods to the citizens of the country. The first problem is that when the budget for public goods was formed, everyone paid for the use of these goods. The second task is to determine the optimal level of provision of public goods to society. To successfully solve these problems, scientists developed new theories, which began to take shape in the 1950-1960s. At this time, a new direction of economic science arose, which today is called “behavioral economics.” It is closely related to psychology; it would be more accurate to say that it originated at the intersection of two sciences - psychology and economics.

As a rule, the origin of the behavioral direction of science is associated with the name of G. Simon [11]. In the 1950s, he conducted very serious scientific research in the field of organizational behavior and decision making, and on the basis of these studies, this area of science acquired large-scale development.

Behavioral economics studies the influence of social, cognitive and emotional factors on the decision-making process and the main feature of this branch of science is considered to be mainly the use of experimental methods. In the 1970s, D. Kahneman and A. Tversky [12], laid the foundations of prospect theory. A theory that made it possible to explain those irrational actions of subjects that could not be explained within the framework of existing classical economic theories. Subsequently, behavioral economics developed and acquired the status of “new behavioral economics” 2017 Nobel Prize winner R. Thaler [13], developing the theory of D. Kahneman and D. Tversky [12], criticizing the theses of traditional economic theory, pointed out three psychological factors that determine decision-making by individuals: bounded rationality, perception of fairness and lack of self-control [6].

A comprehensive analysis of the theory of economic benefit and the “provision of public goods” shows that all theoretical directions in this area of economic science arose, and based on the principle of scientific continuity, they developed and took shape today as an integral system in the scientific and practical life of society. In the context of the formation of a digital society, where fundamentally important management decisions are made mainly through artificial intelligence, the conditions of behavioral sciences make it possible to much more effectively model the creation and provision of public goods to society.

**DISCUSSION AND CONCLUSIONS**

Thus, the study of the theory of creation and provision of public goods to society gives us reason to believe that in their development these theories went through 3 stages:

- From the times of ancient science to the creation of classical economics (starting from Plato [7] and Aristotle [8] to A. Smith [9] and J. Mill [1]);
- From the time of classical economics to the advent of cognitive behavioral sciences (i.e. from A. Smith [9] and J. Mill [1] to G. Simon [11]);

Another fundamental conclusion should be made that increasing the level of material and spiritual well-being directly depends not only on an increase in private goods, but also on the effective provision of public goods.

Created and distributed public goods contribute to the sustainable economic development of the state. The concentration of all public goods in the state is also harmful, as is the uneven distribution of benefits between different categories of the population according to the principle of a uniform and fair approach.
The public goods provided to society should be considered as one of the main drivers of the socio-economic and cultural development of the country in the current conditions. Therefore, to ensure the effectiveness of the provision of public goods to society, it is necessary to develop and apply a scientific concept that corresponds to the socio-economic and cultural level of development of countries or societies.

REFERENCES:


