

THEORETICAL AND CONCEPTUAL APPROACHES TO STUDYING THE NATURE OF ECONOMIC GROWTH

Alina Gudieva¹, Tatyana Sitokhova¹, Marianna Kelekhsaeva¹,
Magomed Suleymanov², Kantemir Khachirov¹

¹North-Ossetian State University named after K.L. Khetagurov, Russia

²Dagestan State University, Russia

gudiyeva00@bk.ru

t_sitohova@mail.ru

marina.kelehsaeva@mail.ru

fefnews@mail.ru

khachirov7@mail.ru

Abstract

The subject of this article is the study of the theoretical foundations of the phenomenon of economic growth. During the study, the authors chose a general retrospective methodology and predominantly historical analysis; The history of the emergence and development of the concept of "economic growth" is considered. In accordance with this, the authors touch upon the problem of the general philosophical foundations of economic teachings, which formed the basis of the concept of modern economic growth and economic development. The research began in the works of Adam Smith and the first political economists, so special attention is paid to the historical period in which these scientists lived and worked. The following is a general overview of the first modern models of economic growth and some approaches to its assessment.

Keywords: economic growth, quantitative theory, development, GDP

I. Preliminary remarks

The term "economic growth" has become widespread in economic science in a relatively short period of time. The first models of economic growth appeared at the beginning of the 20th century. Until this time, the conceptual basis of this concept was not sufficiently developed, and economic growth was not the subject of special research. The crisis of scholasticism in the 14th–15th centuries and the triumph of humanism led to the emergence of a scientific-materialist understanding of the world. The development of material production, trade, the discovery of America, communication with the Eastern world, the teachings of Copernicus and many other events determined the course of philosophical and scientific life. The humanities, including economics, have received independent development. The focus of attention of scientists and early researchers in the field of economic science was the fact of economic well-being, which many of them associated with scientific and technological progress, growth in production, income, employment, population size or the standard of living of the population. However, the subjects that modern researchers accept as factors of economic growth were considered separately in the works of many early classical economists, and some new concepts developed from even earlier hypotheses.

Political economists, when starting to develop and present scientific theories, never used the term we are considering, since it was unknown to them. However, in essence, in all economic theories of the classical and pre-classical period of development of economic science, the concept of economic growth was not only implicitly present, but also served as the core of the theory, grouping around the subject, research methods and final conclusions. As will be shown below, almost

every author of one or another economic theory not only explained and described the reality of economic processes, but also proposed, based on one or another factor of production, his own recipe for economic growth.

Research using historical analysis will require us, in addition to considering many aspects of the teachings of various economists of the 18th century, to analyze some socio-philosophical aspects of the general environment that had a significant influence on the formation of the first scientific concepts. Let us add to this that the first, initial period of the existence of any spiritual phenomenon, be it the idea of progress, the free market or economic growth and development, is always of particular interest to the researcher: "returning to the roots" often helps to clarify the basic structure of something or another complex phenomenon, to identify problematic, vulnerable points in it, so to speak, "birthmarks," and even sometimes to find a way out of those historical dead ends into which sooner or later, due to the limitations of human capabilities, every good undertaking ends.

It must be said that a holistic consideration of the structure of branch sciences, with the inclusion of both philosophical foundations and the history of science, is little by little gaining a place in the modern scientific worldview. As Russian researcher O.I. concludes. Ananyin, at this moment, "ontological knowledge has finally acquired "citizenship rights" in the scientific literature on the post-positivist wave, when economists began to try on the "paradigms" of T. Kuhn and the "research programs" of I. Lakatos for their theories. The best examples of modern methodological literature continue this line, explaining various phenomena and trends in the development of scientific thought based on a thorough analysis of its ontological premises" [1, p. 6]. There comes an understanding of the benefits that such a deep analysis can bring to the development of branch sciences, the obvious, in general, truth is affirmed that at least to test and select promising scientific theories, a scientist needs a higher criterion, a more general view, rather than a highly specialized one, i.e., already limited by previous theories. For such scientific selection, it is necessary to "identify the hidden premises underlying the relevant theories, recreate their real context and meaning, provide the necessary background for comparing competing theories and structuring the accumulated stock of knowledge" [1, p. 7].

Considering all the circumstances and considerations described above, it is no longer surprising that in many works on the history of economic thought, for example, in the two-volume work of M. Rothbard, the problem of the general philosophical foundations of certain economic doctrines is addressed. A detailed study of the philosophical foundations of economic science, including the search and identification of "ontological categories" in the works of its founders, also has a long tradition in science. It is enough to name the names of V.S. Avtonomov, O.I. Ananin, M. Blaug, V.A. Kanke, A. Marshall, D. Houseman.

II. Formation of the idea of economic growth in the works of the first economists

Since the problem of economic growth has been present in the scientific literature since the birth of economic thought, we will limit ourselves to the study of the philosophical aspects of the thought of only some classical economists, necessary for a more complete understanding of their theories, from which the following economists derived modern ideas. Further, from the studies of J. Schumpeter, we will trace how this concept was conceptualized and underwent changes on the way to modern understanding.

In the early stages of the development of economic thought, economic growth was understood as an increase in wealth. The search for sources of enrichment became the subject of work of the first economists. The 16th century in the history of economic thought is notable for the development of mercantilist ideas. Thus, wealth in the era of early mercantilism was measured by the amount of money in the country, and its source was found in foreign trade, carried out according to the principle of "beggar your neighbor." Enrichment was facilitated by measures to influx and

accumulate foreign coins. Over time, economic priorities changed somewhat, and numerous protectionist measures began to be aimed at maintaining a positive foreign trade balance.

They begin to talk about economic growth of the modern type after the completion of the industrial revolution. The growth of knowledge and its application, the improvement of equipment and technology increased production capabilities and ensured population growth. The Industrial Revolution made available new methods of production and deformed previously established economic structures. The production infrastructure expanded, communications were updated, new goods, electrical equipment and machines appeared, which led to the creation of a qualitatively new economic environment. The fundamental industrial restructuring aroused wide scientific interest and opened the need to develop a methodology for studying and describing market processes and formulating theories with predictive properties. From this time on, a full-scale study of the mechanisms and processes of economic growth began, and the development of statistical analysis methods that made it possible to describe the state of the economy.

The study of economic growth in pre-industrial retrospect is very difficult, since today we do not have sufficient statistical data for appropriate analysis. The period that can be described from the point of view of modern models of economic growth, as noted by Yu. V. Sharaev, occupies a very small place in historical space. Over 99% of modern economic research is devoted to a period that covers less than 1% of human life [2, p.47]. Therefore, only two periods of development of the theory of economic growth can be distinguished. The era from the end of the 13th century to the first industrial revolution of the beginning of the 19th century. modern scientists designate it as the first, pre-industrial period in the theory of economic growth, sometimes called Malthusian in the scientific literature [2, p.49]. Its most famous representatives are classical economists.

It is also important that during the life and work of classical political economists, the subject of their research in their own minds was not yet so strictly separated from ideas and considerations of a higher order, from philosophical truths and, more broadly speaking, from a holistic moral worldview, as is often observed in the modern scientific world: thus, "...for Adam Smith, political economy is only a part or chapter of a broader and general worldview and is far from the one-sided specialization that it is now"[3, p.287]. Therefore, we will not find a special study of economic growth in the works of A. Smith.

When considering Smith's teachings, we need to take into account the fact that in the 18th century the intellectual influence of Newtonian mechanics was so great that it, in essence, served as a model and methodological basis for the development of not only the exact sciences, but also the social sciences. It also became one of the important sources of Adam Smith's economic theory. Thus, in full accordance with the mechanistic views of the era, the English economist wrote: "Human society, considered from an abstract and philosophical point of view, can be compared with a huge machine, the correct and coordinated movements of which produce a lot of useful results" [4, p.305].

But, unlike the great physicist, Adam Smith encountered some of the difficulties that often accompany the theoretical consideration of human society. The fact is that for all the gears of the mentioned social machine to rotate in harmony, "invisible forces" are not enough: quite specific efforts of many existing and interacting individuals are needed. And if in Newton's system the cause of gravity was not precisely established (the scientist considered its clarification the task of further research), then in Adam Smith's system the "prime mover" was found. The force that sets the social colossus in motion turned out to be human egoism. As a domestic economist notes, "the separation of political economy from the general discipline, called moral philosophy, occurred thanks to a special model of man, which formed the basis of a new independent science. The main point of this model was a specific motivation: self-interest or the desire for wealth as the main motive of behavior" [5, p.59-60].

Indeed, it was with the thesis about the beneficence of personal egoism that Adam Smith entered a centuries-old philosophical dispute about the harmonious relationship between the general and private good, which, of course, did not subside in the eighteenth century. In the economic theory of those times, one of the positions in this dispute was reflected in the school of mercantil-

ists: mercantilists, turning rather to a statesman, to a legislator who governs society, demanded that he consider the selfish interests of his subjects in a certain way, but look for a way to connect these interests in a common chain, preventing arbitrariness. However, already one of the mercantilists, J. Denham-Stuart, in his work "An Inquiry into the Fundamentals of Political Economy" (1767), formulated the foundations of a new approach to assessing personal egoism: "The principle of self-interest... will be the leading principle of my subject... This is the only motive, which the statesman must use to attract free men to the plans which he makes for his government." And further: "Public interest is as superfluous for the governed as it must be omnipotent for the manager" [5, p.60]. Adam Smith knew well the state of political economy of his time, and not only British: he lived for a long time in France and in personal conversations with French economists (who at that time were embraced by the idea of progress in all spheres of activity, such as Turgot and Condorcet) understood themselves, for example, some of the positions of the physiocrats, adopting the deep respect for free trade characteristic of representatives of this school.

Thus, Adam Smith denied the antagonism between private and general interests: some abstract essence was introduced in which they are reconciled at a higher level, where the particular, which, based on appearance, contradicts the general, is dissolved in it. This is the free market. Likely, Adam Smith's formulation of the "invisible hand" thesis was influenced by his personal commitment to the principles of free enterprise, his belief in fair competition and free trade, and finally, his negative attitude towards all forms of government intervention in the economy. This principle, in one fell swoop, eliminated all the most difficult ethical problems, gave an exhaustive answer to the questions: how the economic activity of individuals is left to their own devices regulated, what could be its positive results, what, in essence, will keep the mass of such individuals from self-destruction and immersion into chaos. And this principle was affirmed by Smith against the background of that very historical state of economic relations, which received the nickname "wild capitalism." As Alfred Marshall later noted, with some surprise, "and yet the time at which free enterprise was showing itself in an unnaturally harsh form, was the very time in which economists were most lavish in their praises of it" [6]. Having given market self-regulation a natural character, elevating it, as it were, to a law of nature, Adam Smith set the context for his own research and could further build models of interactions between economic entities in this "natural" environment.

So, the main source of inspiration for Adam Smith was Newton's theory: the great political economist even devoted his own separate work to astrophysics. Among other sources of Adam Smith's ideas, some modern researchers, in particular V.S. Avtonomov [5, p.61-62], point to the works of Bernard Mandeville, namely, his famous pamphlet "The Fable of the Bees" (1723), which outlines the connection between the unscrupulous, unvirtuous, downright vicious behavior of individual members of society and the resulting good of this society itself. The economy as such, without government intervention in it, "ennobles" human vices, directing them towards the common good: the correct organization of economic activity opens a clear path to a steady increase in social well-being. However, despite the similarity of basic ideas, Adam Smith himself never referred to Mandeville and did not quote his works in his works.

In 1776, the famous "Inquiry into the Nature and Causes of the Wealth of Nations" appeared, where Smith, as conditions for economic success, identified ways and possibilities for the state to use its competitive advantages. The main theme of his work is long-term economic development, a description of the forces leading to the growth of wealth of nations. Here his theory about the positive contribution of individual selfish initiatives is applied to a higher order - to state economic policy. He identified endogenous and exogenous growth factors. The first include population growth, depending on per capita income, employment in material production, soil fertility, investment, etc. Adam Smith considered institutional parameters as exogenous factors. Great importance in his teaching was given to the division of labor, which leads to an increase in labor productivity and, accordingly, can also be called a factor of economic growth.

Another economist and philosopher, Thomas Malthus, is known for his demographic theory, which explains the causes of poverty by the relationship between population growth and the in-

crease in means of subsistence. Malthus set the standard on which all the ideas of classical economists were based: his "Essay on the Law of Population" for a long time cemented in the minds of that time a strong connection between economic progress and population size. Studying the demographic trends of the United States, he concluded that the population, if it has the means of subsistence, freely increases in geometric progression, and the means of subsistence themselves increase in arithmetic progression, which soon, without birth control, leads to resource depletion and general impoverishment. His socio-economic model is based on two main assumptions. Firstly, average per capita income directly affects changes in population size. From this assumption a law is born that determines that the population is limited to its means of subsistence. The second assumption: a negative relationship between these two indicators, due to diminishing returns to factors of production. From it comes the "law of diminishing returns," which states that over time, each subsequent unit of investment will generate less income than the previous one on the same piece of land, that is, a decrease in marginal income.

Malthus did not share the optimism generally characteristic of people of his era. Objecting to numerous social optimists who paint pictures of eternal progress and continuously increasing public good, Malthus put forward the thesis about the existence of insurmountable barriers to progress, inexorable laws of nature that knock the ground out from under any naive optimistic belief. Optimists, according to Malthus, are mistaken in believing that population growth is a positive factor in economic development; they lose sight of the catastrophic impact that too rapid population growth can have (and is already having) on the economic system of a society. Generally, the population grows faster than its means of subsistence increase. As a result, the population becomes poor and thus all social and economic development ceases.

So, in contrast to Adam Smith, Thomas Malthus was a deep pessimist. If Adam Smith believed that even the worst inclinations of people could ultimately lead to good results, then Malthus, on the contrary, saw entirely bad results even from a clear, visible improvement in human well-being. Malthus thus introduced a completely different natural law, likening people to animals in their tendency to unlimited reproduction, i.e. catching the similarity between people and animals in ways that previously often escaped the attention of researchers.

What is the reason for the English philosopher's ardent conviction that the world is structured in such an unmerciful way? Where did he get his confidence from? As A. Marshall points out, this was one of the trends of the era: "the English economists of the earlier half of last century (that is, the 18th - my note) overrated the tendency of an increasing population to press upon the means of subsistence; and it was not Malthus' fault that he could not foresee the great developments of steam transport by land and by sea, which have enabled Englishmen of the present generation to obtain the products of the richest lands of the earth at comparatively small cost" [6].

In fact, the conditions in which Malthus lived seemed, on the contrary, to testify in his favor: the overpopulation of England, increasing as a result of pauperization, created a very clear threat to the well-being of the broadest layers of the population, and all attempts by the government to mitigate its consequences by organizing, for example, regular material assistance to the poor did not produce a positive effect. For this reason, Malthus sharply objected to contemporary legislation to help the poor: their stay in the world should not be prolonged. They are, so to speak, superfluous at this celebration of life.

Among the ideological movements that influenced the formation of Malthus's views, his philosophical predecessors deserve mention, many of whom he himself often cites in his main work: the Italians Botero and Genovesi, the Englishmen Raleigh, Gael, Franklin, Arthur Jung, the German Moser. As noted by S.N. Bulgakov, "to a certain extent, the physiocrats are his predecessors. Malthus's first law, that the population is limited by the means of subsistence, was the main tenet of the popularist teaching of the physiocrats" [3, p.314].

Malthus's ideas were largely shared by D. Ricardo. At the heart of his economic system is the idea that economic growth will inevitably cease in the future due to a lack of natural resources. He chooses the differential rent model as the basis for his theory of wealth. Agreeing with Malthus and recognizing the fact of decreasing land fertility, Ricardo proposes two measures restraining

economic growth - rising land prices and rising prices for agricultural products. It is desirable to supplement all this with technical improvement to ensure economic development, although the latter, according to Ricardo, is not a priority in economic management.

Ricardo's views were influenced by two important circumstances. First, his successful career as a stockbroker and banker. As you know, trading on the stock exchange presupposes some ability to abstract from real production, to consider conditional quotes of shares and other securities as real. This left an imprint on the nature of Ricardo's reasoning, which was almost always extremely abstract and schematic. Secondly, Ricardo was strongly influenced by the ideas of Jeremy Bentham, the English philosopher, founder of the school of utilitarianism. According to Bentham's teaching, the selfish interest of an individual, correctly understood and calculated, not only does not conflict with the interests of society, but, on the contrary, becomes useful for society. In order to neutralize the bad influence of selfish interests, it is therefore necessary to simply treat these selfish interests as extremely rationally as possible, to calculate their effect "arithmetically". Ricardo applied this approach to "economic man": the conclusion from this approach was that if an egoist acts rationally, he brings only benefit to society.

Thus, on the same philosophical foundation as Adam Smith, on the same inviolable belief in the beneficialness of self-interest, new theoretical models of the economic life of society were built. It cannot be said that the founders of political economy did not look for other supports: but, from their point of view, nothing stood the test except personal egoism. It is personal egoism, according to Ricardo, that the researcher simply has to take as his initial premise: otherwise, "if we had assumed any other rule of behavior, we would not have known where to stop" [5, p.67].

In other words, personal egoism has become the fulcrum for economic growth. The model of "economic man", present in the teachings of A. Smith and D. Ricardo, was based, of course, not only on general philosophical considerations, but, in all likelihood, mainly on everyday observations. On this occasion, at the end of the nineteenth century, Alfred Marshall noted how insufficient the everyday experience of the founding fathers of political economy was: communication exclusively with the English living in large cities could not, of course, exhaust the social and spiritual picture of life in even one country of that era: "To simplify their argument, Ricardo and his followers often considered man as a constant quantity and never took the trouble to study possible variations. The people they knew most intimately were residents of large cities, and they sometimes expressed their thoughts as if to imply that other Englishmen were very much like those they knew in the big cities" [6]. One way or another, history has received yet another confirmation of the truth that the social context - origin and country of residence, place of residence (city or village), social circle, intellectual atmosphere - influences the course of thought of even the deepest mind.

K. Marx also made his contribution to the development of the theory of economic growth. Within the framework of this topic, his theory of expanded reproduction, which, in essence, is a model of economic growth, deserves mention. However, K. Marx did not create an independent theory of economic growth, but only explained the process of capitalist accumulation as a kind of "genetic program" of capitalism and, like classical economists, focused on the problem of reducing profit rates.

J. St. Mill summarized the accumulated knowledge about economic growth. He completed the concept of long-term economic growth based on capital accumulation and came to the conclusion that limiting population growth is a condition for long-term industrial progress. The problem is resource limitations, and the solution is technological progress, which allows reducing costs per unit of production. And this is how he formulated it: political economy "concerns man only as a being who desires to possess wealth and who is capable of judging the comparative utility of the means used to achieve a given result" [7, p. 56]. And further: "Political economy views humanity as involved exclusively in the acquisition and consumption of wealth; and [its activities] are aimed at showing what would be the course of action of humanity living in a state of society if this incentive ... were absolute master of all human actions." J. St. Mill gave the model of classical economists

the character of a mathematical abstraction, nevertheless, useful and effective in the scientific analysis of social phenomena and important in quantitative assessments of economic processes.

One way or another, all classical growth theories turned out to be united by a common conclusion about the inevitable approach of a developing economy to the pre-crisis stationary state, when the rate of profit will decrease extremely. Most research has been aimed at explaining the inevitability of this condition and developing a plan to delay its onset. Basically, the recommendations boiled down to limiting population growth and developing technology. The logic of the process under consideration is as follows: the accumulation of capital increases the demand for labor, which, in turn, leads to an increase in wages and, accordingly, to a gradual increase in the population. Here the problem of resource scarcity arises; as Malthus and Ricardo noted, agricultural production is characterized by decreasing returns to scale. This means that each new unit of the necessary good will be obtained with increasing effort, all other things being equal. The opposite process to economic growth: rising food production costs, the need to increase wages for workers in the context of rising consumer prices but maintaining the same labor productivity. All this leads to a reduction in profit margins and economic stagnation. Thus, capital growth ultimately slows down population growth, which, as all the economists discussed have argued, depends on income. And a decrease in real wages leads, accordingly, to a decrease in the birth rate. Classical economic thought focused on the identified contradiction between the growth of savings and the marginal productivity of capital. In their studies, the classics of political economy focused on the accumulation of capital and, in general, it was typical for them to understand economic well-being as an increase in the volume of the total product.

III. Further development of the idea of economic growth and the formation of modern models

J. Schumpeter made a significant contribution to the theory of economic growth. In his "Theories of Economic Development" in 1939, he distinguished between the concepts of economic growth and development. Economic growth seemed to him the same as to the economists who preceded him, but he recognized it as not a sufficient condition for economic development, but only as a change in statistical indicators: "Ordinary economic growth, expressed in an increase in population and wealth, is not considered here as a process of development, since it does not give rise to qualitatively new phenomena, but merely gives impetus to the processes of their adaptation" [8, p. 154].

The driving force in his economic system is the personality of the entrepreneur and the actualization of her individual qualities and creative abilities. The motive that encourages an entrepreneur to act in a market environment is the desire for monopoly profit. The monopoly market structure, with its known shortcomings, is chosen by Schumpeter as preferable, imparting strength to innovative development. The entrepreneur introduces innovations to the market, effectively and profitably managing available resources, implementing "new combinations." The following process is consistently implemented in the market: manufacturing a new good (or endowing it with a new quality) - introducing a new production method - developing a new sales market - obtaining a new source of raw materials and semi-finished products - carrying out corporate reorganization and creating a monopoly. The gradual implementation of these five forms means economic development. Much attention is paid by Schumpeter to the role of credit. Credit is a way of providing an entrepreneur with purchasing power. Creating purchasing power, according to Schumpeter, is the way to achieve economic growth.

In Schumpeter's system, there is no problem of reducing marginal income in relation to innovation; economic growth was slowed down by several other factors, united by the general principle of a decrease in entrepreneurial activity, such as, for example, the replacement of entrepreneurs with hired management personnel who are not prone to risk and creativity, and also ide-

logical exhaustion; the emergence of conditions that make it difficult to generate new combinations.

The next researcher, mathematician J. von Neumann, considered economic growth without addressing the limitations associated with agricultural production, entrepreneurial behavior, the causes of wealth and scarcity, introducing mathematical methods into the theory of economic growth. The theory of sustainable economic growth, known as the von Neumann model, explains the growing importance of investment in the process of social development.

There are two factors in the model, the first stimulates the growth of savings, capital-labor ratio, economic growth and economic progress. When savings grow, the increase in national income is ensured by an increase in capital, not in the consumer fund. Therefore, the second factor ensures sustainable stability of the economy and increases the standard of living of the population in the present, diverting capital from the savings fund to the consumption fund.

Since 1960 theories of long-term growth are emerging, ensuring an increase in income per capita. Keynesian growth theory, outlined in the *General Theory of Employment, Interest and Money*, formed the basis of many subsequent theories. All of these theories addressed the connection between the growth of income and the possibility of its efficient use, since Keynes believed that the market economy causes excessive waste. For Keynes, saving and consumption constitute total income. Economic growth may slow down when the economy goes to extremes. For example, the "paradox of thrift" occurs when, with income growth, the marginal propensity to save among the population increases, and the marginal propensity to consume decreases, and is characterized by a decrease in supply, production and a slowdown in economic growth.

An important place in the Keynesian model is occupied by investments that ensure the multiplicative principle. The latter serves to identify the interdependence of changes in investment flows, income and output. The marginal propensity of consumption in relation to this multiplier is in direct proportionality, and the marginal propensity to save is inversely proportional.

Economic growth is ensured through the implementation of several sequential measures: stimulating the growth of aggregate demand using the multiplier effect using special government programs; redistribution of national income in favor of individuals who are not inclined to increase savings; attracting investment into the economy through the use of the interest rate mechanism.

The first and simplest of the modern models of economic growth is the Keynesian Harro da Domara model, which was the result of the application of Keynesian ideas in the long run. In his work "Toward a Theory of Economic Dynamics," Roy Harrod argues for the importance of distinguishing between the study of static economic states and the economy in dynamics. The subject of his theory consists of three main factors: capital, labor, output per capita. Economic growth, in his opinion, is ensured by an increase in real income, labor force growth, and capital accumulation. For Yevsey Domar, the concept of economic growth, like for Keynes, is inextricably linked with economic potential, the actualization of which is carried out through an increase in labor supply. In his article published in 1947, he aims to determine the conditions necessary to maintain full employment over a long period of time, and to find a rate of economic growth that will correspond to maximum employment in the country [9].

Capital is considered in the Harrod-Domar model as a factor of economic growth. Great importance is given to the analysis of the conditions that ensure the most complete actualization of economic potential. The model postulates two principles: growth of aggregate demand is a necessary condition for economic growth; investments (as part of aggregate demand) ensure growth in consumption and, therefore, sustainability of economic growth [10, p. 194]. The disadvantage of the theory is that it describes a closed economy, which means that there are no export and import relations in the model; the produced product here breaks down only into investment and consumption. This makes the model quite abstract, having little practical value.

For supporters of neoclassical growth models, the factor of increasing living standards is of particular importance. Here we can highlight the model of R. Solow, which is based on the need to accumulate capital and the connection between labor and capital factors in the market where tech-

nical progress unfolds. A high level of capital-to-labor ratio leads to the development of production and increased investment. To achieve economic sustainability, capital growth must be matched by population and investment growth. If investment is insufficient and the population grows, then there is less and less capital per worker, which means less income. GDP per capita is ensured by technological progress leading to capital growth and output growth at a given pace.

Research within neoclassical thought has continued since the 1980s. P. Romer, R. Lucas. Their contribution is to develop models of long-term growth, called endogenous ones. They were partly based on the models of H. Uzawa and K. Arrow. They are united by a common interpretation of economic growth not as a fact of violation of the achieved market equilibrium, but as a normal state. Neoclassical models mathematically describe the relationship between total output and certain variable factors, such as labor, capital, investment, technical progress, but do not define the essence of economic growth, since in many respects they are based on I. Bentham's postulate, according to which the total Welfare is simply the arithmetical sum of the well-being of individual people. According to M. Blaug, these researchers ignored the question of comparing different optima associated with different income distributions [11, p. 540].

T. Palley compared Keynesian and neoclassical approaches to economic growth in his article. He identified two main differences: 1) for Keynesians, capital accumulation is determined by the investment costs of firms; 2) in equilibrium conditions, the growth rate of output should be equal to the growth rate of aggregate demand, which contradicts the classical models, which implied an automatic increase in demand in response to an increase in output [12].

Based on the information obtained, we can conclude that the most common thing for all the presented authors who developed the theory of economic growth is the understanding of it as a process of increasing real output (income). Keynesians focus on increasing output, while neoclassic and, in many ways, modern researchers who follow them, on increasing per capita income. By some, economic growth means an increase in the number and importance of factors of production, indicating an increase in production capabilities, while others mean the dynamics of actual output. The variety of modern models of economic growth is due to many attempts to obtain a more accurate mathematical description of the observed facts of economic life in an extremely unstable, rapidly changing world. In order to select criteria for quality growth from the considered variety of economic growth models, it is necessary to distinguish between the concepts of "economic growth" and "economic development". The category of quality of economic growth is, as it were, at the junction of these two concepts and eliminates the contradiction between them.

In its most general form, economic growth today is usually understood as an absolute increase in GDP in general and per capita. Quantitative indicators in a structurally static, as R. Harrod noted, economy must be taken into account when analyzing economic growth. Economic development is a change in the structural components of the economy, a qualitative movement. Both development and growth are designations of the processes of movement of an object: growth implies a quantitative change, and development – a qualitative one.

The foundations of the categorical meaning of the concepts we are considering were laid by Aristotle. In accordance with his logical system, there are three types of movement - in relation to place, quantity and quality. Movement relative to place means movement, relative to quantity – growth and decline, and relative to quality, a qualitative change occurs, [13] a special case of which can be development.

J. Schumpeter was the first to distinguish these two concepts in economic science. Following Aristotelian logic, he defined economic growth as gradual changes in the scale of the same production and consumption over a certain time. By development, he understood a qualitative transition from one vector norm to another, interrupting the progressive growth of economic life. Its economic development is "a change in the trajectory along which the circuit is carried out, in contrast to the circuit itself, represents a shift in the state of equilibrium, in contrast to the process of movement in the direction of the state of equilibrium, however, not any such change or shift, but only firstly, spontaneously arising in the economy and, secondly, discrete, since all other changes are already clear and do not create any problems" [8, p. 131].

Schumpeter's ideas about economic development driven by innovative development were subsequently supported by N. Clark and C. Hume [14]. According to them, there are two factors of socio-economic movement - the challenges faced by the market and institutional pressures. The simultaneous action of these two factors causes technological changes, and the latter, in turn, lead to economic development. Scientific and technological changes are of a different nature, depending on the degree of influence on the economy, they can be: incremental, in the case when the existing production system and social relations are experiencing minor changes; radical - when new types of goods appear simultaneously and production methods, methods and technologies change significantly; revolutionary - when the market undergoes significant structural changes.

The approach of J. Schumpeter and the economists who followed him in studying the technical and economic component of development, such as T. Veblen, J. K. Galbraith, J. Dosi, determined the modern view of the theory of economic development, which does not focus on the quantitative increase in factors production, such as labor and capital, as was previously accepted, but to improve them as a result of the accumulation of knowledge and innovation [15].

Professor S. Kuznets made a significant contribution to the development of theories of economic growth based on the analysis of the economies of developed countries. According to his concept, economic growth "may be defined as a long-term rise in capacity to supply increasingly diverse economic goods to its population, this growing capacity based on advancing technology and the institutional and ideological adjustments that it demands" [16]. This definition allows for a mixture of economic growth and development, although in Kuznets' concept all factors are inferior in importance to one main one. In his opinion, economic growth is observed when there is a long-term sustainable growth of the national product, and when the economic system becomes able to satisfy an increasingly wider range of needs of the population. Technical progress in this system is given secondary importance.

Technical changes and the development of "new combinations" in the economy lead to a new technological structure. Initially, innovations introduced to the market revolve around the same infrastructure base. After some time, necessary for the market to adapt to new conditions, the process of accelerating economic growth begins, indicated by an increase in GDP. The result of structural economic deformations is the emergence of new infrastructures on the market, which lay the resource basis for the formation of the next technological structure [17, p. 100-111]. This means that chronologically, economic growth and economic development alternate. When the design of a new technological structure is completed, production structures are adjusted, new points of market equilibrium are determined, the vector of development is redirected, and a new economic cycle is launched with its own economic growth.

As an example of structural economic changes, one can cite the large-scale introduction of information technologies, which, according to S. Yu. Glazyev, accompany the duration of the sixth technological order, which began in 2010 and continues at present. The economy today is experiencing revolutionary changes in the production sector; therefore, the automation of routine operations and the replacement of manual labor is important, "at present, the sixth technological structure is emerging from the embryonic phase of development, in which its expansion was hampered by both the insignificant scale and the lack of development of the relevant technologies, and the unpreparedness of the socio-economic environment for their widespread use. But already the costs of developing nanotechnologies and the scale of their application are growing exponentially, the total weight of the sixth technological order in the structure of the modern economy is rapidly increasing" [18].

Approaches to the relationship between economic growth and development can be divided based on their relationship to the historical specifics of each specific economic region. The first can be called universalist, considering the economic movement of all countries along a common global development trajectory. Within the framework of this approach, national and territorial characteristics can conditionally influence the course of economic development, at a certain historical moment slowing down or accelerating its movement in a single direction of progress. The second approach is based on the progressive solution of economic problems of a specific country, region or

group of countries, considering local characteristics. THEM. Tenyakov calls a group of similar approaches “soil-based” [15, p. 17].

Table 1: Characteristics of “technological structures” of economic development

Period		Factors	Dominant industries
1	1770-1830	Water engine	Textile industry
2	1830-1880	Steam engine, coal	Coal industry, railways, metallurgy
3	1880-1930	Specialization in steam engines, electric motor	Electrometallurgy, chemical industry
4	1930-1980	Oil, internal combustion engine	Automotive, organic chemistry
5	1980-2010	Microprocessor, natural gas	Microelectronics, computer science, telecommunications
6	2010-2050	Information technologies, digitalization technologies, neuro- and nanotechnologies	Information Products

Proponents of the second approach (F. List, J. Keynes, institutionalists J. Commons, W. Mitchell, etc.) pay special attention to issues of national economic development. For example, List's economic analysis is based on the principle of historicism. He considered, for example, the transition of a nation from manufacturing production to factory production as a fact of economic development [19]. This approach embeds economic growth in the context of national development, ensuring economic and national security, protecting national interests and, most importantly, asserts the need to develop institutions consistent with the traditions and values of each state. He stands on a definition of development close to that formulated by the Russian philosopher K.N. Leontyev. Having examined the process of development on extensive historical material, he determined that development is “a gradual ascent from the simplest to the most complex, gradual individualization, isolation, on the one hand, from the surrounding world, and on the other, from similar and related organisms, from all similar and related phenomena. A gradual progression from colorlessness, from simplicity to originality and complexity. A gradual complication of constituent elements, an increase in internal richness and at the same time a gradual strengthening of unity” [20, p. 178].

Economic growth, therefore, is a quantitative change, a multiplication of the material composition of a phenomenon. This means an increase in production and consumption parameters in absolute values and per capita in terms of GDP, national wealth, etc. The term “economic growth” spread in the 20th century under the influence of new ideas. This was facilitated by scientific discoveries, the development of trade and industry and prosperity. This term, which still has different understandings and interpretations, was adopted by scientists in the 20th century and came into common use everywhere.

The problem of economic growth has been present in scientific literature since the birth of economic thought. The search for ways to ensure national well-being was the subject of research by researchers of the mercantile and physiocratic directions. The galaxy of founders of classical political economy A. Smith, D. Ricardo, T. Malthus and others theoretically formulated the material accumulated by the historical experience of economic management and supported it with empirical research. Each economist in his own way understood the essence of the phenomenon of “welfare” and with his research ensured the future of economic research in the field of achieving sustainable economic growth.

We said that in the classical period, economic thought did not contain a special idea about economic growth, which later became a special area of research about the laws of motion, the

management of economic progress, a state that is associated with the expansion of material production. Growth theory and modern economics are based on aggregate quantitative measurements on a scale unknown in previous eras. In addition, the difference lies in the fact that the government now plays a role far from the one that classical economists predicted for it. Economic growth, for example, for Adam Smith was a faceless force, and government non-intervention was its first condition. Macroeconomics and growth theory developed by modern economists, in contrast, generally recognized that government can play a significant role in ensuring the growth of national wealth.

References

- [1] Ananyin O.I. Ontological premises of economic theories. – M.: Institute of Economics of the Russian Academy of Sciences, 2013.
- [2] Sharaev Yu. V. Theory of economic growth. M.: Publishing house of the State University-Higher School of Economics, 2006.
- [3] Bulgakov S.N. History of economic and social doctrines. – M.: Astrel, 2007.
- [4] Smith A. The theory of moral sentiments: or, An essay towards an analysis of the principles by which men naturally judge concerning the conduct and character, first of their neighbors, and afterward of themselves. To which is added, a dissertation on the origin of languages. 1801, Printed by A. Strahan for T. Cadell - 9th ed.
- [5] Avtonomov V. Model of man in economic science. – St. Petersburg: Economic School, 1998.
- [6] Marshall Alfred. Principles of economics, eighth edition 1842-1924. Publication date. 1997.
- [7] Hausman, Daniel M. (2008). Philosophy of economics. Stanford Encyclopedia of Philosophy.
- [8] Schumpeter, J.A., The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle, New Brunswick (U.S.A) and London (U.K.): Transaction Publishers. 1934 (2008),
- [9] Domar E. D. Expansion and Employment // The American Economic Review. 1947. Mar. Vol. 37. № 1.
- [10] Kirshin I.A. The formation of the modern theory of economic growth. – Kazan: Kazan State University named after. V. I. Ulyanova-Lenina, 2006.
- [11] Blaug, Mark. Economic theory in retrospect (1962)
- [12] Palley T. I. Growth Theory in a Keynesian Mode: Some Keynesian Foundations for New Endogenous Growth Theory //Journal of Post-Keynesian Economics. 1996. Vol. 19. № 1.
- [13] Aristotle, Physics/ Written 350 B.C.E// Translated by R. P. Hardie and R. K. Gaye
- [14] Clark N., Juma K. Long-term economics: An Evolutionary approach to economic growth. L.; N.Y., 1987
- [15] Tenyakov I.M. Modern economic growth: sources, factors, quality: Monograph. – M.: Faculty of Economics of Moscow State University named after M.V. Lomonosov, 2015.
- [16] Kuznets Simon, «Modern economic growth: findings and reflections». Nobel lecture delivered in Stockholm, Sweden, December 1971, and published in the American Economic Review 63 (September 1973).
- [17] Glazyev S. Yu. Theory of long-term technical and economic development. M.: Vldar, 1993.
- [18] Glazyev S. Yu. The Great Digital Revolution: Challenges and Prospects for the Economy of the 21st Century // [Electronic resource]. Access mode: <https://glazev.ru/>
- [19] List, Friedrich. Das nationale System der politischen Ökonomie.
- [20] Leontiev K. N. / Selected works in 3 volumes. Volume 1 - Moscow: Yurayt Publishing House, 2023. Text: electronic // Educational platform Yurayt [site]. URL: <https://urait.ru/bcode/513553>