

THE THEORETICAL AND METHODOLOGICAL ASPECTS OF ECONOMIC GROWTH AND ECONOMIC DEVELOPMENT

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UDC 330.34-027.21
JEL Classification: O10; O40

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The Theoretical and Methodological Aspects of Economic Growth and Economic Development

The aim of this article is to provide a theoretical and methodological substantiation of the conceptions of economic growth and economic development in the context of their interconnection and differences. This is achieved through the prism of the dialectical approach, synergistic approach, normative approach, cyclical theory of economic development, economics of happiness, and theory of sustainable development. The main reasons why economic growth should not be considered as a process identical to economic development are highlighted. It is substantiated that economic development is a more expansive concept than economic growth, which is a component of economic development. Economic growth is perceived as a desirable outcome of economic activity, while economic development, due to its dialectical nature, is progressive and regressive, involving alternating stages of growth and decline. In cyclical theories, economic growth typically coincides with the upswing phase of constantly repeating cycles of economic development. The analysis indicates that there is no singular methodological approach to determining the level of economic development. In contrast, economic growth is typically assessed based on GNP and other metrics. Development economics employs a range of indicators, including life expectancy, poverty, unemployment, income inequality, education, healthcare, happiness, freedom, and others. From the perspective of sustainable development economics, an excessive focus on quantitative indicators of economic growth without considering the cumulative effects of economic activity can be described as "growth without development." This approach may jeopardize the long-term progress of humanity. It is substantiated that economic growth can be predicted within a certain time period, provided that the economic system maintains relative stability at the same level of development. Conversely, economic development is a challenging to predict process, dependent on random fluctuations that cannot be predicted. Consequently, the modeling of economic development necessitates the convergence of the exact and social sciences, interdisciplinary synthesis, which represents an important area for further research.

Keywords: economic development, economic growth, sustainable development, happiness economics, economic cycles, indicators of economic growth, indicators of economic development.

DOI: <https://doi.org/10.32983/2222-0712-2024-2-213-222>

Табл.: 1. **Бібл.:** 25.

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УДК 330.34-027.21
JEL Classification: O10; O40

Пасичник Т. О. Теоретико-методологічні аспекти економічного зростання і економічного розвитку

Метою статті є теоретико-методологічне обґрунтування концепцій економічного зростання і економічного розвитку в контексті їх взаємозв'язку та відмінностей через призму діалектичного підходу, синергетичного підходу, нормативного підходу, циклічної теорії економічного розвитку, економіки щастя і теорії сталого розвитку. Виділено основні причини, чому економічне зростання не слід розглядати як процес, тотожний економічному розвитку. Обґрунтовано, що економічний розвиток є ширшим за змістом поняттям порівняно з економічним зростанням, яке є складовою економічного розвитку. Економічне зростання сприймають як бажаний результат економічної діяльності, в той час як економічний розвиток за своєю діалектичною суттю є прогресивно-регресивним, передбачає чергування етапів підйому і спаду. В циклічних теоріях економічне зростання, як правило, збігається з фазою підйому постійно повторюваних циклів економічного розвитку. Аналіз показує, що єдиного методологічного підходу до визначення рівня економічного розвитку не існує, на відміну від економічного зростання, оцінка якого заснована на показниках ВВП, ВВП на душу населення тощо. В рамках «економіки розвитку» використовуються такі індикатори, як очікувана тривалість життя, рівень бідності, безробіття, нерівномірність розподілу доходів, рівень освіти й охорони здоров'я, рівень щастя, свободи людей тощо. З точки зору економіки сталого розвитку надмірна концентрація на кількісних показниках економічного зростання без урахування сукупних ефектів економічної діяльності є «зростанням без розвитку», за якого довгостроковий прогрес людства ставиться під загрозу. Обґрунтовано, що економічне зростання піддається прогнозуванню в межах певного часового періоду, доки економічна система зберігає відносну стабільність на одному рівні розвитку. Своєю чергою, економічний розвиток є складно прогнозованим процесом, залежним від випадкових флуктуацій, які неможливо передбачити. Тому моделювання економічного розвитку потребує зближення точних і соціальних наук, міждисциплінарного синтезу, що є важливим напрямком подальших досліджень.

Ключові слова: економічний розвиток, економічне зростання, сталий розвиток, економіка щастя, економічні цикли, індикатори економічного зростання, показники економічного розвитку.

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Introduction. A cursory examination of macroeconomic research over the past decades reveals that economic development is typically viewed through the lens of economic growth. This is a logical approach, given that developed economies are those that have demonstrated consistent growth over an extended period. By analyzing the trends in gross domestic product, national income, GDP per capita, and other indicators, economists can draw conclusions about the level of economic development of a country.

At the same time, the usefulness of this methodological approach should not lead us to assume that the two concepts of economic growth and economic development are identical. While economic growth is primarily evaluated in terms of quantitative, statistical dynamics, economic development is also associated with qualitative changes and structural transformations, making it a more complex object for analysis and modeling. Another significant obstacle to the conflation of economic development and economic growth is the occurrence of irrational resource utilization and environmental degradation during the growth process, which threatens the capacity of future generations to meet their own needs.

Analysis of the latest research on the problem. The study of economic growth and economic development is one of the most exciting and important areas of economic science. It is therefore a topic of great interest to many contemporary researchers. A variety of aspects related to these processes have been explored by authors including T. Voronkova (cyclicality of economic development and patterns of economic crises), H. Hlukha (evolutionary and substantive analysis of the relationship between economic growth and economic development), V. Eismont (determination of criteria for economic growth and economic development), O. Karintseva (structural problems of the national economy in the context of the conception of sustainable development), L. Klymenko (dialectical approach to the analysis of economic development), L. Lebedeva (problems of the negative impact of high rates of economic growth on overall economic development), I. Shtuler (study of economic growth models), and N. Suprun (environmental aspect and the paradigm of sustainable development). The institutional approach to the study of economic development problems is clearly evident in the works of Western scholars such as D. Acemoglu, T. Jackson, R. Layard, A. Lewis, A. Sen, D. Perkins, D. Seers, and T. Smith.

It is notable that in the economic literature, the concept of economic development is applied mainly to countries with underdeveloped economies, while economic growth is a subject of research for relatively developed economic systems. This is somewhat surprising, given that it is assumed that developed countries have already reached a level where no further development is possible. However, the source of economic growth for developed economies is primarily the innovations, which reflect the qualitative component of economic development. Nevertheless, this is the tradition of the economic literature on economic development, which should be taken into account.

In this context, the issue of the correlation between the categories of economic growth and economic development remains insufficiently disclosed, which creates theoretical and methodological uncertainty and produces ambiguities.

The aim of the article is to provide a theoretical and methodological justification of the conceptions of economic growth and economic development, considering their interconnection and differences through the lens of dialectical approach, synergistic approach, normative approach, cyclical theory of economic development, economics of happiness, and theory of sustainable development.

Presentation of research results. In order to illustrate the distinction between development and quantitative growth, J. Schumpeter employed the following metaphor: add as many mail-coaches as you please, you will never get a railroad by so doing [1, p. 74]. This analogy was presented in order to highlight the limitations of neoclassical theory, which is focused on the problems of achieving market equilibrium and closed cycle of economic flows. This theoretical framework, therefore, precludes the possibility of development. The emergence of "new combinations," as defined by J. Schumpeter, represents a crucial aspect of real development [1, p. 10].

There are several compelling reasons why economic growth should not be regarded as an identical process to economic development (Table 1).

1. In our previous study, we examined the logical and epistemological foundations of the development conception and identified two general theories—dialectics (the philosophical paradigm) and synergetics (the theory of complex systems) [2]. The dialectic approach to economic development defines it as an irreversible, directed change in the socioeconomic system that occurs through the mutual transition of quantitative changes into qualitative ones, through dialectical leaps, and through no-alternative progressive changes. Moreover, it has a progressive-regressive character, with regression being a necessity for development to occur. The synergistic paradigm provides a similar explanation, but uses scientific rather than philosophical semantics. Economic development, as defined by complex systems theory, is a dynamic process of transition between different states of the economic system. This transition is accompanied by a corresponding evolution of the system's complexity, which alternates between periods of imbalance and equilibrium (chaos and order). These periods of equilibrium and imbalance are influenced by external factors and internal disequilibrium.

In turn, economic growth can be defined as a quantitative change in specific parameters that determine the state of the economic system. These parameters include, for example, the volume of production and consumption of GNP. However, it is important to note that negatively directed growth is undesirable and may result in an economic decline or recession.

Economic growth and economic development: relation of the concepts

№	Features	Economic growth	Economic development
1	Dialectic approach	The process of increasing the aggregate production of a country over a certain period of time, which forms the material basis for economic development and at the same time depends on its level. Contradiction: it is possible for a country to experience growth without development, as well as development without growth	Irreversible, directed changes in the socio-economic system that occur through a process of mutual transition whereby quantitative changes give rise to qualitative ones. This transition may be described as a series of dialectical leaps and non-alternative progressive changes
2	Synergistic approach	Modifications to specific parameters that define the quantitative and qualitative state of the economic system, including gross national product (GNP), gross domestic product (GDP), national income, and other relevant indicators	The constant transition from one state of the economic system to another, accompanied by its inherent complications and changing states of imbalance and equilibrium (chaos and order), which is caused by both external influences and internal imbalance
3	Normative approach	Economic growth is a desirable outcome because it increases opportunities for economic development. However, under the conception of sustainable development, economic growth is only desirable if it takes into account the ecological limits of the biosphere and does not undermine the ability to meet the needs of future generations	Economic development is desirable when considered in the context of progressive societal evolution and the increasing complexity of the system as a whole. However, disturbances, imbalances, and crises which are an integral part of the development process are usually perceived negatively
4	Cyclicity	This phenomenon is part of a recurring pattern of economic development, occurring typically during an economic upswing	It is revealed in the constant alternation of economic cycle phases: boom - crisis - depression. Long-term cyclical development is progressive in nature
5	Modeling and forecasting capabilities	It can be predicted within a certain time period, provided that the economic system remains relatively stable at a consistent level of development. This is the reason why some models of economic growth are constantly being replaced by others	The process is inherently difficult to predict due to the presence of random fluctuations that cannot be anticipated. Modeling requires an integration of the insights from the humanities and social sciences through an interdisciplinary approach
6	The existence of constraints on the rate of growth and development	It is a fact that they do exist. This is due to the limited natural resources and capabilities of the biosphere, as well as the cyclical nature of development. The resumption of growth is contingent upon the transition to a new level of development	Fundamentally absent, since development is an objective process accompanied by qualitative changes in the system that do not imply quantitative restrictions.
7	Evaluation indicators	A standard methodology for assessing economic growth, based on a variety of indicators, including GNP, GDP, GDP per capita, national income, and others.	There is no unified methodological approach to determining the level of development. In addition to indicators of economic growth, a variety of other indicators are employed, including those pertaining to life expectancy, poverty, unemployment, income inequality, education, healthcare, happiness, human freedoms, and other relevant factors.

Source: compiled by the author.

Over an extended period, a system can accumulate quantitative changes until it reaches a bifurcation point. At this point, new order parameters begin to take effect and determine the system's behavior. Consequently, economic growth and the opposite economic decline are part of the same process, namely economic development. The notion of economic development is broader in scope than economic growth.

Economic development, by its dialectical nature, is both progressive and regressive, involving alternating stages of growth and decline. The economic policies of countries undergo constant change between periods of liberalism, conservatism, and reactionism. This is not the case with economic

growth, however, because people perceive this category rather normatively. They view it as a constant movement forward and upward, as a desirable result of people's economic activity, and relatively long stages of decline as disasters. In addition, economic growth is not an irreversible phenomenon. Countries attain a specific level of economic strength and subsequently decline, while economic entities at the micro level experience periods of growth and decline.

While economic growth is frequently accompanied by changes to production technology and the emergence of new products, this does not necessarily imply that the overall complexity of the system increases. Indeed, there is often an inverse

relationship between economic growth and structural changes in the economy. Therefore, when building models of economic growth, it is essential to consider the potential impact of these complex interactions, which often involve mutual conditioning and cyclical causality.

2. Theories of economic growth are based on certain hypotheses and abstractions, which are intended to identify and study the most important factors of economic growth. One of the most common assumptions is the constant tendency to economic equilibrium. If we consider a realistic view, the development process involves qualitative structural changes in the system, which, given the continuous change in external conditions, constantly take it out of equilibrium. While the market mechanism is capable of adapting to certain changes in conditions, others occur, largely due to innovations, and disrupt the previously achieved balance.

The authors of economic growth theories did not attempt to create comprehensive models, recognizing that such an endeavor was inherently unfeasible. Consequently, economic growth models are capable of accurately reflecting the idiosyncrasies of growth trajectories within specific historical periods. However, they are also susceptible to limitations, particularly in periods where the underlying data set exhibits a lack of regularity and the sample is subject to random fluctuations. For instance, Malthusian models accurately describe the preindustrial world. Indeed, the Malthusian trap has been demonstrated to explain the economic stagnation observed during the millennial period, spanning from the Middle Ages to the industrial revolution of the nineteenth century [3]. R. Solow's model offers a compelling explanation for the rapid growth observed in some developing countries, particularly Japan, South Korea, and China. However, it has been demonstrated that R. Solow's model is not a suitable framework for understanding the economic dynamics of Sub-Saharan Africa, which has fallen into a state of poverty and where the greatest obstacle to economic growth is not the minimum amount of capital or savings, but the destructive dynamics of internal political conflicts combined with ineffective institutions [4, p. 258]. P. Romer's models illustrate the potential for sustainable economic growth in developed post-industrial countries and elucidate the reasons why less developed countries cannot attain the same level of prosperity.

The specificity and sensitivity of economic growth models to changes in input parameters can be explained as follows. As a system develops, it becomes more complex, acquiring new qualities and characteristics. This renewal is characterized by new features and distinctions. The growth of the economic system at a different level of organizational complexity is determined by a new combination of order parameters and structural changes. Consequently, there is a necessity for either a significant modification of existing models of economic growth or the emergence of new ones, which must incorporate an increasing number of input parameters. In other words, as the complexity of the system increases, which is a consequence of development, we are dealing with a new type of growth. For this reason, general theories of development exist, but there are no universal theories of economic growth that are equally valid for different time periods.

Economic growth can be forecast within a certain time period, provided that the system remains relatively stable at the same level of development. Forecasting economic development, however, is a much more challenging task, since the manner in which a dynamic economic system behaves over a long time interval often depends on random fluctuations that cannot be predicted.

3. In light of the preceding argument, it can be reasonably concluded that there are inherent constraints to economic growth, but not to economic development. The constraints to economic growth are a consequence of the intrinsic limitations of natural resources and the capabilities of the biosphere, even in the presence of technological advancement and an intensive economy.

The representation of economic growth as a function that describes the dependence of aggregate output on a certain set of factors, each of which has its own limit of stimulating effect, allows us to observe that within each configuration there is a positive decreasing marginal productivity of production factors. For instance, in Solow's model, the impact of capital accumulation and population growth on economic growth is limited to the economy reaching a steady state, at which point further growth of these production factors will no longer result in the desired economic growth. This is the marginal value of aggregate output, which will fluctuate within a certain range, with its own lower and upper limits. In other words, in the case of an unchanged structure and relatively stable configuration of production factors, the system has constraints to economic growth. Growth resumes only as a result of qualitative, structural transformations, as a result of new technologies or innovations that act as a mechanism for launching a new growth cycle.

4. One of the defining characteristics of economic development is its cyclicity, which has been the subject of study by various authors. J. Kitchin (short cycles lasting 3-3.5 years) [5], C. Juglar (medium-term cycles lasting 7-11 years) [6], S. Kuznets (cycles lasting 15-25 years) [7], N. Kondratiev (long cycles lasting 40-50 years) [8], J. Forrester (long-term cycles lasting 200 years) [9], and A. Toffler (ultra-long cycles) [10] are among the authors who have contributed to this field of study.

M. Tugan-Baranovsky's analysis of the economic crises of the 19th century in Great Britain revealed the cyclical nature of capitalist development. He demonstrated that capitalist economies experience alternating periods of growth and decline, expansion and contraction. It was demonstrated that business cycles last between seven and eleven years [11, p. 781], yet the significance lies not in the mathematical nature of the periodicity itself, but rather in the inherent reasons that are intrinsic to the very nature of capitalism. These reasons include the tendency of capitalism to pursue unlimited expansion of production as a means of capital accumulation, as well as the general disorganization that arises from the absence of a systematic distribution of national production between different sectors of labor [11, p. 784]. These characteristics eventually result in overproduction and economic crises. A general disorder of trade follows directly after its intensified expansion, and the industrial cycle ends in stagnation when free financial capital is

accumulated, followed by a new era of industrial revival when this capital is spent, then a new crisis, and so on. [11, p. 796].

In fact, M. Tugan-Baranovsky studied the medium-run cycles of C. Juglar, which were considered obvious by economists of his era. This was due to the observation of economic crises with a constant frequency and the availability of statistical material that enabled the drawing of relevant conclusions even at that time. For instance, K. Marx also posited that the material depreciation, change, and expansion of the means of production, such as machines that typically have an average lifespan of 10 years, constitute the material basis of crises or medium cycles [12, p. 649].

Nevertheless, the nature of economic cycles has been demonstrated to be somewhat more complex, encompassing both short- and medium-term fluctuations within the market, as well as longer-term development cycles that span approximately 40 to 60 years. N. Kondratiev proposed that in addition to short, but not seasonal, 3-to-3.5-year fluctuations and medium-run 7-to-11-year industrial cycles, there are also long development cycles. In order to substantiate his hypothesis, he examined alterations in the average price of commodities, interest rates on capital, nominal wages, foreign trade turnover, coal and iron ore production and consumption in France, England, Germany, and the United States. These observations were made during a period from the late 18th to the early 20th century, when the relevant statistical data was available. It is important to note that the scientist was aware of the limitations of the observation period and the lack of sufficient comparability of statistical data. Given these constraints, it was challenging for him to demonstrate the existence of large cycles with the level of scientific rigor required. Consequently, he employed a probabilistic approach.

The theoretical model of the development of long cycles, as constructed by N. Kondratiev, can be described as follows. A long cycle is comprised of three main phases: expansion, stagnation, and recession. The upward wave of the long cycle is associated with the renewal and expansion of basic capital goods, with radical changes and restructuring of the main productive forces of society. Since this process necessitates a substantial expenditure of capital, it must be preceded by a significant accumulation of material and financial capital at the disposal of powerful entrepreneurial centers. The pace of capital accumulation must exceed the pace of current investment, and for this to occur, the credit system and stock market must function effectively, and capital must become affordable and "cheap." The concentration of relatively free capital facilitates investment in large-scale projects and the implementation of previously accumulated technical inventions, which in turn engenders radical changes in production conditions and the creation of new productive forces.

However, the growth phase is accompanied by an increase in competition for new markets, aggravation of international political relations, and the creation of preconditions for intensification of internal struggle, which eventually leads to internal social upheavals and even military conflicts. That is why the wave of growth cannot last indefinitely—it inevitably breaks down and a downward wave begins. The investment of capital in large and expensive projects increases the demand for it, which in turn leads to an increase in the cost of capital and an increase in interest rates. This, in turn, gives rise to mo-

tives to reduce investment, which decreases economic activity and causes prices to fall.

The economy enters a phase of recession, during which business entities seek to identify new technical solutions that can reduce the cost of production. This period is characterized by intense scientific development and the emergence of technical inventions. The focus and intensity of scientific and technical discoveries and inventions are not accidental, but rather a function of the previous development of science and the demands of practical activity. However, certain economic preconditions still need to be in place for the introduction of innovations. As a consequence of the decline in investment, the demand for capital is diminishing, the interest rate on capital is declining, and factors that facilitate its accumulation are becoming increasingly influential. The growth rate of savings exceeds the rate of investment, and banks and commercial enterprises amass greater and greater quantities of capital. Favorable conditions are created for the growth phase, when one large cycle ends and paves the way for a new one [8].

The theory of long business cycles offers a comprehensive understanding of the cyclical dynamics of the economy, encompassing a range of cycles with varying durations. This theoretical framework aligns with the principles of synergistic development, as evidenced by the following correspondence:

- 1) The market economy is presented as an open, complex, internally self-organized, non-equilibrium dynamic system that is constantly evolving. The development of an economic system manifests itself as a constant movement from one state of equilibrium to another. In mathematical terms, equilibrium is defined as the limit of the sequence to which a dynamic system constantly strives, but which it never reaches. In other words, over the duration of a given period, fluctuations occur in a wave-like manner around a state of equilibrium. However, the majority of the time, the dynamic economy develops within a state of disequilibrium, which challenges neoclassical economic theory. According to the theory of complex systems, imbalance is a source of organization and order. In the economy, disequilibrium serves as the driving force of development and is essential for facilitating long-term economic growth;
- 2) Development is not a straightforward process; it does not represent a simple rising line of growth. Rather, it unfolds cyclically, unevenly, with jolts and fluctuations. Nevertheless, this does not deny the long-term evolutionary nature of the process. A progressive, irreversible evolutionary process provides a trend trajectory of economic growth, superimposed on reversible market fluctuations;
- 3) A crisis event in the economy is defined as a bifurcation accompanied by a fundamental shift in the qualitative behavior of the system, leading to a phase transition. As T. Voronkova posits, it is the crisis that forms the cycle, and the repeated recovery of the crisis state provides the market economy with the cyclical nature of development [13]. The cause of crisis events is the accumulation of fluctuations (social contradictions, aggravation of the struggle for resources in economic relations) to a critical level;

- 4) According to N. Kondratiev's theory, each subsequent phase of the cycle is caused by conditions that have accumulated over the previous period. Furthermore, each new cycle, while maintaining the principles of the capitalist organization of the economy, naturally follows another, as well as one phase of the cycle follows another. In other words, a higher-order system incorporates the elements and patterns established by a lower-order system, but in a manner that alters their structure and behavior throughout the process of evolution. Each new cycle emerges in distinct historical circumstances, at a novel level of development of productive forces and with a novel level of technology, and thus is not a mere reiteration of the previous cycle;
- 5) Savings, the rate of interest on capital, and scientific and technological inventions are parameters of order that determine the behavior of the economic system at different stages of its development. It is noteworthy that N. Kondratiev himself was cautious in his assessments, viewed the economy as a complex and dynamic system, attempted to avoid monocausality, and termed the identified regularities "empirical correctness." Consequently, for instance, he considered technological innovations to be symptoms rather than dominant factors in economic dynamics;
- 6) Macroeconomic dynamics is a function of the collective behavior of a multitude of microeconomic entities. While these entities are influenced by prevailing general economic conditions, at the point of bifurcation—that is, at the moment of phase transition—their behavior is altered by new order parameters, leading to deviations from the steady state of the macro system;
- 7) N. Kondratiev postulated that medium cycles appear to be "strung" on the waves of long cycles and depend on the phases of the long cycle [8]. For instance, medium cycles that occur during the declining period of the long cycle are distinguished by a specific duration and depth of recessions, a brief duration and weakness of upswings. The combined effect can also be observed in relation to medium and short cycles. This feature indicates the self-similarity of the system's trajectories, which is illustrated by examples of fractal curves constructed by the Swedish mathematician H. von Koch.¹

Thus, in cyclical theories, economic growth is viewed as a phase of recurring cycles of economic development. This provides a comprehensive answer to the question of the relationship between these two categories. It is important to understand that crises and recessions are as much a necessity for economic development as its growth. During a downturn, conditions are created for the resumption of growth at a different level of system complexity.

5. If economic growth is considered an indicator of economic development, then the question of defining

other equally important indicators arises. Studies on economic development pay special attention to measuring the dynamics of people's well-being. However, it is not sufficient to determine the real level of income or even the level of consumption; we are also talking about qualitative parameters such as life expectancy, poverty, unemployment, income inequality, education, and healthcare. Furthermore, we must consider difficult-to-measure indicators such as happiness, freedom of choice, and so forth.

The Gross National Product (GNP) as an indicator of macroeconomic growth is not without its shortcomings in terms of its creation and proper interpretation, which calls into question its use in some contexts. S. Kuznets, who introduced the GNP indicator in 1937 when he presented his report "National Income, 1925-1935" to the US Congress [15], later subjected it to constructive criticism. "...In using it to judge economic problems and policies, distinctions must be kept in mind between quantity and quality of growth, between its costs and return, and between the short and the long run" [16, p. 29]. In light of the multifaceted nature of the qualitative component within the broader quantitative indicator of economic growth, S. Kuznets underscored the necessity to delineate the objective: "Objectives should be explicit: goals for "more" growth should specify more growth of what and for what" [16, p. 29]. Indeed, statistical agencies incorporate any officially produced article within the GNP indicator, irrespective of whether it benefits society or not. "Sisyphean" or fruitless, unnecessary labor materialized in some meaningless project, such as the construction of a road to the moon, will be part of the GNP. The production of alcohol or tobacco articles is a significant component of national income, but it will not improve the quality of social development. It is also important to understand that official statistics do not include a significant portion of transactions related to the shadow economy.

D. Seers was among the first to highlight the limitations of macroeconomic growth indicators in comparison to other development indicators. He was particularly critical of the universal postulates of neoclassicism and economic growth as the primary objective of development. "In fact it looks as if economic growth may not merely fail to solve social and political difficulties; certain types of growth can actually cause them" [17, p. 2]. Therefore, it is perplexing why national income or gross national product are the most accessible statistical indicators of economic activity. As D. Seers posits, the fragmentation of statistical data on other indicators of economic development reflects the priorities of governments. If a government is more interested in solving social problems than in national income, then statistical services will prepare the relevant statistics [17, p. 12].

The notion that economic growth entails a cost to society was first posited by A. Lewis. On the one hand, he presents arguments in favor of economic growth, the primary of which is the expansion of human choice. Conversely, he refutes the hypothesis that there is a correlation between welfare and happiness, stating that "happiness results from the way one looks

¹ Note. A fractal is a complex geometric figure that is composed of several infinite sequences of parts, each of which is similar to the whole figure, and recurs when the scale is increased [14, p. 209].

at life... there is no evidence that the rich are happier than the poor, or that individuals grow happier as their incomes increase." [18, p. 420]. Economic growth allows individuals to exert influence over their environment, thereby enhancing their autonomy. It also reduces mortality rates, enables individuals to work fewer hours while achieving greater productivity, and provides them with the freedom to select leisure activities, engage in arts, and pursue philosophical studies. These benefits, which are often inaccessible to the poor due to economic and mental constraints, become accessible to all members of society through economic growth. Rapid economic growth also offers opportunities for society to achieve its social and political aspirations, which is why government officials advocate for it.

Nevertheless, if the benefits of economic growth were free, there would be no debate about its necessity. The rate of economic growth may be excessive for the healthy development of society. According to A. Lewis, economic growth is only one of many positive phenomena, and it can also be excessive. "Excessive growth may result in, or be the result of, excessive materialism, excessive individualism, excessive mobility of population, excessive inequality of income, or the like." [18, p. 429]. The primary cost borne by society in pursuit of sustainable economic growth is the painful transition from one way of life to another, the transformation of certain social institutions, and the development of others. The issue is not the process of economic growth itself, but rather the extent to which the pace of growth aligns with the pace of institutional change and the duration of the transition from one model of social relations to another. Attempting to halt social change is futile, as the tendency to change is inherent in human nature [18, p. 433].

A. Sen employed an ethical approach to analyzing the problems of economic development and emphasized that equating development with GNP growth, increasing personal income, industrialization, technological progress, or social modernization is a narrow view of the problem. According to A. Sen, development can be understood as a process of expanding the real freedoms that people enjoy. These freedoms include political freedoms, economic facilities, social opportunities, transparency guarantees, and protective security [19, p. 10]. While growth in GNP or individual income can be a means of expanding the freedoms enjoyed by members of society, these freedoms also depend on social and economic mechanisms (e.g., access to education and healthcare), as well as political and civil rights of people [19, p. 3]. In the theoretical framework of A. Sen, the expansion of real freedoms is regarded as the primary objective (the "constitutive role" of freedom) and as the primary means of development (the "instrumental role" of freedom) [19, p. 36]. In recognizing the "constitutive" role of freedom, A. Sen proposed a fundamentally new approach to the analysis of social development processes. This approach formed the basis of the final document of the UN Summit "Transforming Our World: The 2030 Agenda for Sustainable Development" in 2015 [20].

If the objective is to expand human freedom to live a life that is worthy of value, then the role of economic growth in expanding these opportunities should be integrated into a more fundamental understanding of the development process [21, p. 21]. According to A. Sen, the impact of economic growth on development processes largely depends on how the fruits of

economic growth are used. Indeed, there is a certain contrast in development between countries with high economic growth rates, such as South Korea and Taiwan (which have made significant progress in improving life expectancy and quality of life), and Brazil (which, while growing rapidly, has not made progress in the dynamics of qualitative development parameters) [19, p. 45]. In order for economic growth to promote development, it is of the utmost importance to establish effective institutions, such as markets and related organizations, governments and local authorities, political parties and other civic institutions, educational institutions, and mass media [19, p. 9]. After all, it is the institutions that create the conditions in which people have the opportunity to assess how they want to live.

Researchers in the field of development economics have devoted considerable attention to the issue of happiness as part of human well-being. R. Layard, in particular, has demonstrated the paradoxical situation in which Western societies strive to increase income, get richer (over the past fifty years, the average income of people in these countries has more than doubled), yet do not become happier [22, p. 3]. Conversely, in the developing world, where income levels are low, additional income is highly valuable because it allows people to escape from material poverty. This is consistent with one of the key assumptions of nineteenth-century economists: additional income brings the most happiness when one is poor, but with increasing wealth, happiness from it decreases [22, p. 33]. The reasons why the level of happiness does not increase in the process of economic growth lie in the psychological area. For an individual, the amount of income received is not the primary determinant of happiness; rather, it is the comparison of one's income with a certain norm. This comparison is influenced by several factors, including social comparison, which is the tendency for individuals to increase their income relative to the growth of other people's income. Another factor is addiction, which refers to the tendency for expectations of comfort from acquired material goods to increase over time, motivating individuals to acquire new material goods. Both of these reasons compel individuals to reallocate their total time resources, resulting in a reduction in leisure time and an increase in time spent working and earning money [22, p. 47].

R. Layard identifies seven factors that determine the level of human happiness: family relationships; financial situation; work; community and friends; health; personal freedom; personal values [22, p. 62-63]. In the latter half of the 20th century, some factors improved, such as health, income, and quality of work. Conversely, others deteriorated, including family relationships, the strength and security of society, and the spread of altruistic values [22, p. 78]. The latter is a negative phenomenon for the author, as it is associated with the prevalence of self-centered individualism and the ideology of social Darwinism. R. Layard posits that in the twentieth century, the weakening of the institution of faith and the secular religion of socialism resulted in the absence of a generally accepted system of ethical beliefs. Consequently, the void was filled by the "non-philosophy of rampant individualism," [22, p. 5] which is based on the desire for self-realization and personal enrichment. This leads the author to the question of an adequate measurement of national welfare, and it is not exclusively related to national

income or gross national product. The argument that with the growth and maximization of GNP there are opportunities for its redistribution is unconvincing, since redistribution of GNP for the sake of equity is costly in itself and leads to a decrease in national income due to reduced incentives for both rich and poor people to work [22, p. 136]. "So we should rededicate our society to the pursuit of happiness rather than the goal of dynamic efficiency. Life is for living. Through science, absolute material scarcity has been conquered in the West, and we need to think hard about what would now constitute progress." [22, p. 235].

It is our contention that the unquestionable achievement of development economics is the proposal of a novel conceptual approach to the assessment of economic development dynamics, encompassing a comprehensive set of criteria, including the level of happiness, human freedom, life expectancy, and the distribution of income. This enabled the issue of economic development to be considered not only in terms of enhancing people's well-being and income growth, but also in a much broader context, and to address the question of the correlation between the categories of economic growth and development. The emphasis on GNP is no longer a primary concern for society, as quantitative income growth provides only limited additional happiness.

It is important to acknowledge that the selection of criteria for evaluating the dynamics of economic development represents a significant methodological challenge. For instance, there is no precise definition of the concept of "happiness" within the field of economic science. The use of freedom, human values, the fair distribution of benefits, and other ethical criteria for measuring well-being as economic indicators often encounters issues related to a person's subjective choice, which can often lead researchers into the field of normative science.

6. Growth is not a defining feature of natural ecosystems.

Rather, evolutionary changes and the achievement of ecological balance are more typical of such systems. In the field of economics, there has been a historical neglect of the fact that human activity is part of the natural world and relies on limited natural resources. However, in the late 20th century, it became clear that ignoring social and environmental factors in economic efficiency leads to negative industrial and anthropogenic impacts on the biosphere. The exclusive focus on quantitative indicators of economic growth, without consideration of the broader effects of economic activity, is now perceived as a situation of "growth without development," with long-term progress at risk. As N. Suprun notes, economic science, driven by the desire to maximize utility and unconstrained by ethical and environmental considerations, is criticized for becoming a "blackboard political economy" that fails to understand cause and effect relationships or the effectiveness of people's economic behavior [23, p. 122].

In the 1970s, a theoretical framework for the conception of sustainable development was established with the primary objective of developing models of economic growth that would consider the resource and environmental constraints of the biosphere and not compromise the capacity to meet the economic needs of future generations. This necessitated the

incorporation of non-economic variables into optimization models, enabling the analysis of social development from the perspective of aggregate efficiency. Consequently, the theoretical and methodological specifics of the approach are analogous to those employed in the assessment of economic development from the perspective of the "economics of happiness." These include interdisciplinarity, nonlinearity, ethical and philosophical orientation, and the problem of parameter selection.

The conception of sustainable development has become a matter of global importance, with numerous international organizations, including the United Nations, incorporating it into their environmental protection initiatives.

It is important to note that there are alternative formulations of the concept of "sustainable development" in the scientific literature. These include "supported development," "balanced development," "permissible development," and "self-sustaining development" [24, p. 73]. If the goal is to ensure the ability of a complex open system to respond to environmental changes while maintaining dynamic equilibrium and sustainability, the term "self-reproducing development" is the most appropriate. The conception of weak sustainability implies that the total amount of natural and human-made capital should not decrease over time. In contrast, strong sustainability suggests that both forms of capital should remain at the same level. In summary, the system should be self-reproducing as it undergoes quantitative and qualitative changes, which aligns with the principles of the synergistic conception.

Conclusion. Thus, an analysis of economic processes that relies exclusively on the metric of "what has been achieved," which is based solely on quantitative growth indicators, fails to consider crucial social, environmental, and structural shifts. Moreover, it fails to comprehend the manner in which and at the expense of what the economic system will reproduce itself in the future. As a result, such an analysis often produces an incomplete and, in some instances, erroneous understanding of economic development.

This is why, in many instances, we observe the phenomenon of economic growth without concurrent social advancement. The use of indicators to assess economic development is a crucial issue in economics, and it requires an interdisciplinary approach that incorporates insights from other social sciences. We concur with the opinion of B. Havrylyshyn that there is still a need to define a comprehensive indicator of the efficiency of societies, and that this may not be achieved in the near future. One of the reasons, in his opinion, is that "society has never been considered from the standpoint of the total efficiency of society, and the concept of efficiency has been applied only to specific processes, corporations, organizations, programs, or, at best, the economy as a whole" [25, p. 200].

The search for a comprehensive indicator of societal efficiency is ongoing, and the convergence of disciplines will open up new perspectives for the study of economic development. Thus, methodological diversity is essential.

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Стаття надійшла до редакції 07.06.2024 р.

Статтю прийнято до публікації 22.06.2024 р.