

TIME DUALITY IN ECONOMIC SYSTEMS

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The influence of the time factor on the socio-economic processes for a long time period is the one of the key problems of economic research. Such researches are largely very indirectly concerned with the conceptual study of the time factor impact as a separate category of economic science. As an important issue of current research we see the necessity of research systematisation for the study of the role of the time factor in the economics in the contemporary studies of researchers. The purpose of this manuscript is to systematize methodological approaches to examine the duality of time in economic research. The main objectives of this paper can be considered as the study of researchers views on the nature of time duality at all, its manifestation in the economic theory, comparison of different visions about the impact of the time duality problem on contemporary development of economic system.

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The theory of duality is a very important concept within the field of scientific research. This theory was first developed in relation to linear programming, but it has many applications, sometimes even more natural and intuitive interpretation, in several related areas such as nonlinear programming, networks and game theory.

In human everyday life time serves two functions: to measure the duration of the processes and determine the order of events. The possibility of such use is predetermined by the dual nature of the time phenomenon. Time- duration is in relation of complementarity to the time-order. With the increase of time units (unit of indistinguishable) decreases the error in determining the duration of the process and increases the error in determining the order. The multiplication of errors is a constant, which is specific to each of the physical, biological or social process.

Time acquires its true meaning associated with the irreversibility or even with the

“history” of the process, and it is not simply a geometric parameter characterizing the motion.

According to D. Meadows, by and large, from a systemic point of view there is no distinction between short-and long-term prospects. The phenomena of different time scales simply attached one into another. Some actions that are taking place today will have consequences that occur almost immediately, and others - many years later. The art of management in economics is the ability to see both short-term and long-term prospects. In her point of view, economics time horizons are limited by political elections or by the return period of investment, while the family time horizon is much larger, and historically humanity trying to plan their lives for much longer periods of time. The wider time horizon, the more chance there is for further progressive development.

Objectively, there is only a functional time, which is formed by all, without exception, actual processes, including economic. Only functional time is objectively exist, because it formed by the real processes. In other words, each process takes place (exist) at the time, which is formed by the sequential change of it qualitatively new conditions and does not depend on a person's consciousness.

Astronomical time and calendar time, as they are postulated and invented by a human is not correct to call objective, regardless of whether they are attached to economic or other process (postulated are the moments of time that have nothing corresponding to them in objective reality).

Developed a systematization of economically important time properties as a resource, showed the nature of the difficulties of the traditional use of the resource approach to economic time. Consistent inclusion of time bivalence as an economic resource and the concept of time-consuming need to draw distinctions between the so-called static and dynamic resources. It is noted that the doubling of economic time characteristics must comply with the doubling of concepts that describe the actual processes of post-industrial time-consuming economics that meets the time transformation from exogenous to endogenous parameter of economics. The concepts of static and dromology resource, static and dynamic value, reversible and irreversible components of the time evaluation and other economic resources.

An important result of this research we consider valid evidence of the dual nature of the time factor in the socio-economic life. This feature of the time effect on the economic processes has several associated symptoms, in particular: time-duration and time-order; basics of economic laws and limiting factor in the space-time development; qualitative and quantitative property; time as a relative definitions and categories and time as a specific measurement values; short-term and long-term phenomena; profit maximization problem and cost-minimization problem; time as an astronomical (calendar) and functional time; time as an interval duration and the irreversibility of its passage.

As an important area for further research we consider study of the impact of time duality on specific developments processes in the economics of the enterprise or the

region (country), distinguishing features influence of the time factor on the results of economic agents' development.

References:

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