

## EXPERIENCE OF SYSTEM ANALYSIS IN THE THEORIES OF VALUE OF A. MARSHALL AND M. TUGAN-BARANOVSKY

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**Abstract.** At all stages of economic science evolution comprehensive theoretic conceptualization of the essence of value has been one of the most pressing research problems. The conducted study is aimed at justification of system analysis critical importance for alternative versions of two-criterion theory of value, proposed in the turn of XIX-XX centuries and based on the methodological principles of early neoclassical research paradigm. To achieve this goal, certain classical political economy maxims about cost-of-production theory of value origin were refuted and provisions stating that theory of value systems analysis in the works of both Marshall A. and Tugan-Baranovsky M. marked the beginning of a truly scientific stage in the interpretation of this theory were justified. It is shown that the former attributed first priority to the idea of value formation through interaction of “blades of a pair of scissors” (marginal utility and marginal cost) in his interpretation marginal theory of value; the latter - to the idea of interaction of labor costs and marginal utility. The author comes to the conclusion that in the past century emerging behavioral theory of value served as a prologue for the next phase of value systems analysis through the interpretation of its origin in the context of the two complementary theoretical bases-marginal and behavioral versions of theories of value.

**Keywords:** systems analysis, early neoclassicism, cost-of-production theory of value, two-criteria marginal theory of value.

### INTRODUCTION

Theory of value as one of the key components of economic science has always been a subject of scientific economic research. Therefore, both in foreign and Russian economic literature the theory is recognized “not just as special but fundamental” [1, p. 6]. However, despite the centuries-old history of reflection on the phenomenon of value, disputes and discussions on its essential aspects do not fade, but intensify. The truth is, even today, many researchers of theory of value, in essence, stand in solidarity with a position stated by J.S. Mill in his “Principles of political economy” in 1848. According to this position, theory of value is complete and form no subject to further study. According to M. Friedman, who expressed his warnings on this topic: “Any assertion that economic phenomena are varied and complex, denies the transient nature of knowledge, which alone gives meaning to scientific activity; such an assertion is on a

par with a reasonably mocked John Stewart Mill’s position. Fortunately, value laws have nothing to be determined by any modern (1848) or any future author; the theory of this subject is complete” [2, p. 44].

Founders of value theory in classical political economy, introduced inherently deadlock alternative versions of cost-of-production theory of value by focusing on only one base, which was limited by adoption or rejection of one of the two factors of cost-of-production interpretation. This kind of version one factor theoretical comprehension of value in modern economic literature is usually related either to the theory based on the concept of labor cost (labor theory), or to the theory based on the concept of total costs of production (cost theory). Adherents of the first version from “classical school” were the researchers from Petty W. and Boisguilbert P. in 17th-early 18th centuries up to physiocrats and Smith A. in the second half of the 18th century and then from Ricardo D. to Mill J.S. and Marx K. in the 19th

century. The emergence of different version (based on production costs) goes back to another view on the theory of the value of A. Smith, which in post-manufacture period of classical political economy was shared by its adepts, who also considered themselves the Smythians, such as: Say J.-B. and Malthus T.R. in the early 19th century, Senior N.W., Bastiat F. and others until the completion of this direction of economic thought in the middle and second half of the same century [3].

However, "marginal revolution" happened in economic science in the last 30 years of the 19th century led to the qualitatively new stage of the scientific confrontation of researchers in the field of theory of value. This confrontation became evident, on the one hand, due to completion of a research paradigm which dominated almost two centuries in classical political economy and, on the other, due to the emergence of early neoclassical research paradigm on "the second wave" of "marginal revolution" (in the 1890-ies). Today these events are typically characterized as the turning point in the history of economic science and a crucial - from the perspective of systems analysis - rethinking of the theory of value. In this context, our research is focused on the opposition of one-factor (one-criterion) versions of the theory of value proposed by the classics of political economy, and two-factor (two-criteria) versions of the theory of value introduced by the adepts of neoclassicism, particularly by Marshall A. [4] and Tugan-Baranovsky M. [5;6;7].

## METHODS

While conducting this research through the prism of a retrospective approach the author takes into account various methods and analytical tools used by the classics of political economy, early neo-classics, representatives of heterodox neoclassicism and institutionalism at appropriate stages of economic science evolution in the context of the theory the value research. Historical-economic approach allowed to reveal that at the turn of the XIX-XX centuries prerequisites of manifestations of modifications to the

theoretical essence of value in the works of both Marshall A. and Tugan-Baranovsky M. research methodology, based on the systems analysis, became obvious. Each of them did not accept causal methodological maxims of political economy classics, preferring functional method to causal one.

### 3. Results and discussion

The main results of the study can be limited to stating two provisions. First provision is that innovations of Marshall A. and Tugan-Baranovsky M. in field theory of value are based on a commitment to the values of marginal economic analysis, opposition to causal analysis method of methodological tools for functional economic analysis. Second provision is that both of them saw the formation of value in the relationships and interdependence of two bases, which allows to recognize them as founders of two-criterion theories of value.

Meanwhile in economic literature only Marshall A., who issued his "Principles of Economics" in 1890, is usually regarded as the main (first!) opponent of one-factor theory of value versions from the standpoint of economic marginal analysis and synthetic theoretical essence of value. For example, Blaug M., believes that: "... a strive to make simple conclusions for the theory of welfare basing on utility theory, ignoring inequality in income distribution and difficulties in implementation of meaningful interpersonal comparisons, Marshall was the main law-breaker there, and that was the main reason for scepticism about the achievements of marginal utility theory [8, p. 329]. In turn, Avtonomov V. also believes that Marshall was the scientist "who attempted to synthesize the main achievements of the classical, marginal and historical schools, becoming a founder of neo-classical direction in economic theory" [9, pp. 98-99].

Given judgments of Blaug M. and Avtonomov V. do not seem not reasoned enough due to the following circumstances. Firstly, not only thanks to Marshall A., but also with a contribution of Clark J. B. and Pareto V. "marginal revolution" entailed undoubtful theoretical and methodological achievements allowing to avoid special analysis of value of each production factor [10, p. 40]. Secondly, since 1890

understanding of synthesized essence of value and justification of its two bases has wrongly been linked only with the works of Marshall A. This is explained by the fact that in the same year, a similar approach to understanding of two bases of value was used in "The doctrine of marginal utility of economic benefits as a reason of their value", the work of Tugan-Baranovsky M., Russian Economist, according to Abalkin L., one of the pioneers of "Russian school of economic thought" [11, pp. 31-32] – Tugan-Baranovsky M.

However, in the Marshall's "Principles" two bases of value are reduced to reflection on marginal utility and marginal cost interaction in the process of value formation ("two blades of a pair of scissors"). Meanwhile in his teaching Tugan-Baranovsky M. implies a collaboration of labor costs and marginal utility, as evidenced by his following conclusions.

First, recognizing the value of the theory of marginal utility and proposing not to absolutize empirical generalization, Tugan-Baranovsky postulates in this respect: "There is a scientific explanation of the long-known fact of price and quantity of goods on market interdependence, given to us only by marginal utility theory. Only from the perspective of this theory one can talk about the law of supply and demand, as rather about

a scientific law than rough empirical synthesis" [5, p. 212].

Then Russian scientist gives an explanation, significant from a methodological point of view, stressing that "research of the causes of values should not be discontinued until one gets to such facts that come out of the economic science framework" [5, p. 215]. His final conclusion that the theory of marginal utility "does not only constitutes a refutation of views of Ricardo or Marx", but on the contrary, "this theory, if properly understood, is an unexpected confirmation of value theories of mentioned economists" [5, p. 228].

In conclusion, it is important to outline that during the 20th century as development of innovations proposed by Marshall and Tugan-Baranovsky, there emerged behavioral theories of value by Veblen T., Chamberlin E., Commons J.R., allowing to identify how value can be influenced by consumers or collective institutions through non-price factors such as [8, s. 7]:

- human inclinations, habits and instincts (Veblen T.);
- products quality parameters, valued by consumers, service and advertisement culture (Chamberlin E.);
- legal grounds and collective institutions activities ( Commons J.R.).

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