Emilian Dobrescu

CORRELATION BETWEEN ACCUMULATION AND CONSUMPTION

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The recent publication of prof. dr. Emilian Dobrescu's work entitled "Correlation between Accumulation and Consumption" is an important editorial event, being part of the directives set by our party leadership for the constant improvement of the economic management systems.

The work is the result of the author's long preoccupations and is based on profound erudition in the field of economic-mathematical modelling, on deep knowledge of the concrete realities in our country and on a profound analysis of the specific mechanism of the development of Romanian economy.

Besides its high intrinsic theoretical and practical value, the work also has the great merit to appear in the course of the ample action of prognosis of the social-economic development of the Socialist Republic of Romania until 1990—2000, an action initiated and co-ordinated by the higher party leadership. The work is thus becoming a valuable guide for all those taking part in this action of great responsibility.

The idea lying at the basis of the elaboration of the work is confessed by the author himself in its first pages, when affirming that "one of the most interesting directions of development of the economic theory in the last few decades has undoubtedly been the interpretation of the macro-economic processes in the terms of optimum programming."

It is known that one of the essential elements for an optimum programming model is the optimum criterion, on the basis of which the best solution to the model is established. That is why, the author proposes, first and foremost and succeeds in substantiating scientifically, from the position of the Marxist economist, a series of extremely topical problems concerning the macro-economic optimum. Critically analysing the results which have been obtained so far on a world plane in the determination of the macro-economic optimum, the author reaches the conclusion that "the maximization of the level of satisfaction of the consumption requirements of society represents the general criterion for the development of the socialist economy. "He also analyses various possibilities for the utilization of criteria of relative macro-economic optimum.

The application of mathematical methods in the study of economic phenomena and processes, besides allowing the direct obtaining

of optimum solutions also has the advantage of compulsorily implying the elucidation and substantiation of the notions and indicators used. Setting out from this very stage which is necessary in the elaboration of the mathematical model of an economic process, the author tackles in the second chapter some of the aspects concerning the sphere of the national revenue, the correlation between gross accumulation and net accumulation, taking into consideration the fact that the paying can be partly used also as a source of enlarged reproduction.

This chapter also analyses at length the concrete way of formulating the optimization criterion of the correlation between accumulation and consumption and the extremely important problem of the period of time for which the optimization of this correlation is pursued.

An extremely important problem linked with the elaboration of the optimization model of correlation between accumulation and consumption — which is dwelt on by the author with much competence-is that of the estimation of the efficiency of accumulation. In this connection, the work presents a series of practical ways, some of them extremely ingenious, of solving this problem.

In our opinion, the central part of the work is represented by the description of *the first models of economic growth* for the economy of the Socialist Republic of Romania.

As a general characterization of the two models worked out by the author (the monoproduct model and the five-branch model), we do not exaggerate at all affirming that they are the closest to the economic phenomenon and most rigorously substantiated of all the models published in the literature of speciality, in the last few years.

After a rigorous explanation to the significance of each indicator and a presentation of the general structure of the models, the author critically analyses the informational basis for the determination of the parameters of the models. In fact, this chapter is an extremely competent analysis of the phenomena pertaining to the development of the Romanian economy in the 1950—1970 period and an analysis of its development in the 1971—1975 five-year plan period.

We should also appreciate the way in which the author has succeeded in correlating and combining the macro-economic with the micro-economic phenomena into a single mechanism.

From the mathematical point of view, the two models of economic growth are dynamic models with discrete variables, also containing lags. The estimation of these lags makes these models reflect much more faithfully concrete reality than the usual models found in the literature of speciality.

In the elaboration of these models, the author shows perfect knowledge of the mechanism of the Romanian economy and proper mastery of the mathematical modelling apparatus. The conception lying at the basis of the elaboration of these models also has the great merit to allow a series of their important generalizations. In this way, in our opinion, the first generalization, as a matter of fact stressed by the author himself, would be the transformation of the models from

simulation models into optimization models. Other generalizations which we consider it useful to study are:

— the consideration of the weight λ of investments in productive capital goods in the total investments as a *control parameter*; it is an attempt at quantification of the correlation between the funds earmarked for education, science, health protection, etc. and the increase of labour productivity. This would imply the introduction into the model of a new equation of development, namely that concerning the dynamics of funds in the unproductive sector.

— the inclusion into the model of aleatory parameters. Of course, the consideration of a dynamic model with aleatory parameters will also imply big mathematical difficulties.

The last part of the work is devoted to the presentation of some effective results obtained by the author by applying the two models. In his opinion, the monoproduct model can be used especially for examining the influence exerted by the accumulation rate on the dynamics of consumption and the obtaining of detailed information on the development of the national economy in the future is possible through the multisectorial model.

We consider that the concrete results presented by the author are extremely useful and convincing as regards the utility of the mathematical modelling methods in the elaboration of prognoses regarding economic growth. These results are of a nature to supply a rich material of economic analysis concerning the implications of accumulation on consumption and to offer a solid basis for economic judgements concerning the optimum correlation between accumulation and consumption.

In conclusion, it should be once more mentioned that this work has the merit to substantiate, on the one hand, the main economic categories linked with the modelling and prognosis of economic growth, to establish a scientifically grounded methodology as regards the informational basis of the elaboration of such models and the presentation of concrete models of economic growth for the Romanian economy.

Besides its — both theoretically and practically, applicative-character, this work also has the great merit to open up a vast field for future research in the domain of economic growth modelling.

We consider that for turning to account the entire richness of ideas contained by professor, dr. Emilian Dobrescu's work, a series of co-ordinated studies will have to be made, in which research workers, academic staff and specialists in economy should participate. This would be one of the important contributions scientists in our country should make to the implementation of our party's directives concerning the continous improvement of planning systems.

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