JOHN MICHAEL MONTIAS, *The Structure of Economic Systems*. New Haven and London: Yale University Press, 1976. xii + 323 pp., index. Cloth, $20.00.

The comparative literature of economic systems is growing in volume gradually every year, although not fast. Hardly any attempt has been made, however, at synthesizing the *methodology of comparison*. Professor Montias's book is perhaps the first large-scale work to undertake this synthesis. In our days, when most authors do not aspire to more than adding their own little piece of stone to one or another well-designed building of economic research and to place it at a spot marked beforehand and left empty, it readily commands respect if somebody has the courage to put down a new blueprint for a building. A number of ideas in Montias's book should be subjected to further discussion, and further research dealing with the comparison of economic systems will certainly result in a more complete blueprint in a few decades. This does not reduce, however, by any means the *pioneering* merits of the book.

The book is modest: it calls attention emphatically to its own limits. It is exactly this call that justifies the comparison of the output with the aims the author sets for himself. Chapter 1, "An Introduction and an Apology," summarizes in six points the tasks of the book (see p. 4); they will be examined one by one in the following.

1. "To supply a value-free vocabulary with which to describe and compare economies and systems, or, more precisely, to describe and compare the structures or 'working arrangements' of systems and their outcomes."

Valuable results have been reached by the book in realization of this aim. This becomes particularly clear when the vocabulary elaborated in the book is compared with the much narrower "average vocabulary" of the economist educated in the neoclassical tradition. This book and, in general, the comparison of economic systems, broadens our thinking. Browsing through Montias's vocabulary the economist may realize that quite a series of phenomena taken for granted and considered *given* (objectives of the individual, and various collective institutions, e.g., firms, forms of ownership and custody, super- and subordinate relations, etc.) are in fact *system specific*. These phenomena are given only in the system that he studies—in other systems they appear in other form. The economist reading Montias's book with a really open mind may get considerable stimulation out of the vocabulary.

2. "To propose a framework for organizing data gathered from different economies with a view to drawing comparisons."

Although the book contains quite a few interesting ideas also in this respect, it has, in fact, only roughly elaborated on the problem in question.

Maybe the author went too far in listing also this subject among his objectives, very far-reaching already.

Whoever once has done a comparison of systems knows the extreme difficulties caused by the very fact that in different countries data are gathered in different classifications and according to different statistical definitions. For the conscientious comparative economist it is possible only with very tiring and meticulous work—often with the aid of arbitrary assumptions and supplementary estimates—to transform initial data so as to render them comparable. A framework is badly needed to outline the difficulties and to provide positive advice to economic statisticians of each country, as well as to researchers doing the comparison.

There is, however, also a more hidden aspect of the problem. Most of the data at all available for comparison cover three spheres. The first is that of *ex post real* variables, i.e., the physical stock-flow variables of production, investment, trade, and consumption. The second sphere is that of variables concerned with *money* (monetary and fiscal stock and flow variables, prices, etc.). And the third sphere is that of variables figuring in *published plans* (economic plans of the government, economic targets put down in declarations of political parties, statesmen, and politicians, etc.). In addition, in every economic system a number of important processes take place that are *not* described by the above-mentioned three variables traditionally observed. Intentions, expectations, motivations, satisfaction, and disappointment of lower-, medium-, and higher-level decision makers; incentives, autonomy, dependence, power, conflict, etc.—all these are phenomena either within the *human mind* or found in relationships between human beings and groups. It is possible to observe them and to measure their characteristics, though that is very difficult, and can be done in many cases only in an indirect way. Montias's book calls attention to the importance of the above-mentioned (and related) phenomena (but says little about the methodology of their observation and measurement). And yet comparison of systems will remain superficial as long as it does not reach down to these layers.

3. "To consider analytical methods, drawn chiefly from economics and organization theory, that may help construct models relevant to comparison."

This is the objective that is best achieved by the book; it offers even more than what is promised in the introduction. In the past decades economic literature has worked out a series of models and analytical methods for description of economic processes that take place within different institutional frameworks. Their publication has been in most part dispersed and isolated. If we were to seek help from the classified catalogue of a library, we should certainly find these books under widely different entries. It is Montias's merit to have brought these models together in one place. In this respect his book is a reference work in which the reader can find a brief description of the most important and most remarkable institutional models, and, at the same time, he also gets to know where the author places such formal models within the science of the description of economic systems. Merely for illustration we shall enumerate a few of the models covered by the book.

Information structures, "teams" (Hurwicz, Marschak, and Radner)
Labor-managed firm (Ward, Vanek)
Output-maximizing firm (Ames)
"Natural selection" and profit-maximization (S. Winter)
Social power (Harsanyi)
Public goods (Fourgeaud)

Unfortunately, in economic research a separation of "formal" and "institutional" schools has taken place. The latter school often raises the charge against mathematical economists (partly justified) that they neglect life-like institutional description. In reality, however, there is no incompatibility between the two approaches: formal models are highly useful in the analysis of systems with widely different institutional frameworks. It is true that the mathematical modeling of the different institutions is just now only in its infancy: it is just emerging. Montias's book can promote its development in two ways. On the one hand, it provides, as has been mentioned above, a survey of a whole series of institutional models originally elaborated by other authors. On the other hand, it adds a few aspects of original research to the inventory of institutional models. In this connection we have to stress particularly the highly inventive work accomplished by the author together with T. C. Koopmans in the analysis of *hierarchies*. The hierarchic system of social relations and of control play important roles in various kinds of processes. It is of basic importance in understanding the socialist economy, but it appears not only there but in other social systems as well. The Koopmans–Montias analysis provides an exact apparatus for description of the hierarchy and its special properties, and for understanding its behavioral regularities.

4. "With the help of analytical models, to suggest hypotheses ('conjectures') that might be tested on cross-national data."

It is my impression that this task was fulfilled only partially. It seems that the undertaking is not even very compatible with other objectives of the book. Really important hypotheses are formulated usually within the framework of an elaborated theory. And this book does not consider it as one of its tasks to set up a general economic-systems theory, or to work out the theory of one special system or subsystem.

5. "To review some recent quantitative comparisons made by empirical

researchers in the field in the light of the methodological considerations discussed in the book."

One attractive feature of the book is its self-assurance in moving about in time and space. It draws its references from precapitalist society, American slavery, and earlier and later phases of capitalism as well as from numerous variations of the socialist system—from many historical periods. And, regarding countries of our times—the Unites States, the Soviet Union, Japan, China, East and West Germany, Cuba, Yugoslavia, Sweden, and Western Africa—the list could be continued to name all the countries that are covered in some aspects by the book. One heavy brake on development of economics is "provinciality." Even the most outstanding and original minds are often absorbed in their own surroundings: their own system surrounding them in the present time. Montias's book is a refreshing study because of, among other things, the wide sphere of the author's knowledge and information.

6. "To write a book on economic systems that anthropologists, political scientists, and sociologists might read with the feeling that the author was not completely oblivious to their methods, ideas, and approaches."

At this point we can continue the appreciation begun in the preceding paragraph. In Hungary an ironic phrase is used for narrow-minded specialists: they are called "specialist-barbarians"—knowing their own trade well, but completely ignorant in other branches, and, what is worse, not even interested in anything outside their own narrow field. In every field, in economics, too, such one-sidedness is often encountered. Montias's book stands out imposingly from the plain of "specialist barbarism." Its example may stimulate other research workers.

After discussing and evaluating the objectives of the book, I would like to add some critical comments on a few general methodological problems. I consider the book thought-provoking throughout, even where I do not share the opinions expressed in it. I shall make no effort to survey all the questions in which our views differ, but I would mention, rather for illustration, three problems, partly interrelated.

My first doubt is concerned with the description of economic leaders' individual motivation and of the common objectives of collective institutions (e.g., firms). Following professional traditions, Montias is inclined to describe these objectives by taking one single well-defined variable and marking it as the "maximand" of the individual or group in question. Thus, e.g., the leader of the socialist firm (in countries outside Yugoslavia) "maximizes the bonus." I think that these firm managers are certainly not indifferent to the bonus and that it influences their actions. Yet in my opinion that is still too narrow and too poor a description of their motivation. Let us examine their behavior in long-term decisions, which certainly have an outstanding role in understanding the functioning of the system. Why is it that the socialist firm manager uses every means to acquire the largest possible investment resources for his own firm, while no bonus interest is involved in it? And why is it that the behavior of medium- and high-level industrial managers (so-called industrial sectorial managers, assistant undersecretaries, deputy ministers, ministers) is in many respects similar to that of firm managers (e.g., they fight with no less energy for expansion of their own field), while they have no claim to a bonus at all?

This question leads us on to a more difficult and more general methodological question. What we miss in connection with motivation is the *rich and varied* description of reality. Oversimplification and abstraction from essential characteristics may lead to analytical errors. In the comparison of systems the contrasts "model versus model" and "reality versus reality" are often mixed. For instance, in analyzing the differences between allocation without and with the aid of prices, the *actual* experiences of the former (including its deficiencies) are compared with the *stylized* (or maybe idealized) model of the latter. Montias's book is not free of this fault either. It can lead to erroneous conclusions, particularly if the analysis has normative aims or at least has a "touch" of the normative in it.

Two theoretical models (e.g. Montias's ingenious models "Friedmania" and "Nipponia") can be contrasted with each other as long as we know that it is two abstract thought experiments that are compared. Yet not one further step must be made. Any normative conclusion can be drawn *only if* the following question has been carefully examined: whether the conclusions and mathematical propositions drawn from the model will hold if assumptions deviating from reality are relaxed. What I ask here is not whether the United States would come off well if it always took the prescription made out for the week by Milton Friedman in the *Newsweek* column. The important question sounds as follows: is the modern capitalist system *able* to function strictly in the "Friedmanian" manner? If it is not, what happens if it does function after all in the manner advised by Friedman does not matter for the normative aspect. Is it by chance, or does it result from stupidity of those actually in power that the system does not function according to that advice? Or is it due to some cause *originating in the system*? What is the explanation of the fact that in the 1970's "Nipponia" *exists* and "Friedmania" *does not*? I am well aware, and it appears clearly from the book, too, that Professor Montias on his part does not recommend the introduction of "Friedmania." What is missing at several spots in his book is the *strict* control of the reality content of the abstract model.

By this we have come to the third methodological question I wish to raise in regard to this book. A system is a *whole*, composed of numerous kinds of *parts*: individuals and organizations, motivations driving them, interactions and information connecting them, "rules of the game," etc. Yet a real social system is not like a "Märklin" or "Lego System" toy that allows us to construct any building we like (bridge, house, ship, or airplane) from prefabricated elements. In real systems there are *attracting* and *repelling powers*. There can be "affinity" between certain elements, motives, or rules: they can be well-connected; but it may be impossible to join other features together. The economic system is a "mechanism" *as well as* an "organism." It has an "immune reaction" with which to throw out transplanted foreign bodies.

Montias is well acquainted with the problem: he mentions it in the Introduction. But later he writes basically with a mechanical view about systems, keeping almost entirely away from the organistic approach. Yet without the latter it is impossible to understand which changes of the system are lasting changes (because they are organic, i.e., resulting from the innate nature of the system) and which are superficial reforms sooner or later eliminated by the movement of the system, or reform proposals that—however pleasing and however apparently rational—never find real acceptance.

We may have gone too far in expecting answers to such questions from Montias's book. The author has only himself to blame: the high standard and wide horizon of his work constantly increase the reader's intellectual appetite.

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