SAGGI SULLA METODOLOGIA DELLA RICERCA IN ECONOMIA

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Rainer Masera (a cura di), *Saggi sulla metodologia della ricerca in economia*, Roma, Gangemi Editore, 2010, pp. 125, ISBN 978-88-492-1954-8

The volume *Essays on Research Methodology in Economics* is a collection of five papers on the subject of research methodology applied to economics by professors and researchers from academic and research institutions, notably the Bank of Italy.

The five essays and their introduction are quite independent of each other, with respect to the issues dealt with and the approaches adopted. The book is conceived as an educational tool for post-graduate students from the Faculty of Economics; it introduces to the topics of research methodology, considered as an important prerequisite for a career as a researcher in any institution. Far from creating a comprehensive textbook covering all the aspects of the matter, the authors intend to stimulate a discussion on common approaches, methods and processes of scientific research. Although the remarks are related to economics, taking into account the current economic and financial scenarios, they retain a general validity if extended to other disciplines of social sciences and, in many ways, of the so-called “hard sciences”.

The *Introduction* by Rainer Masera is an overview of the main epistemological issues on tools, methods and results of the theory of knowledge and scientific research, focusing on the traditional distinction between “hard sciences” and “soft sciences” and their main differences and common features. The essay focuses on the complex and sometimes not well-defined connections among methodology, growth, scientific research and technological progress: the sustainable growth paradigm is in fact closely linked to productivity growth, supported by knowledge accumulation processes, which are based on research activity.

The wealth of professional backgrounds and research experiences of the authors produces a plurality of opinions and views, which converge towards the same conclusion: too much reliance on models and their underlying theoretical paradigms, far from substantive market experience, may lead to serious mistakes in assessing and policy making, with possible negative implications in the real economy, as the crisis of 2007-2010 has shown.

The essay *Research methods in financial economics* by Luca Barone underlines the progress of financial studies in the last 40 years with reference to the methods and tools for evaluation of financial assets: they are strictly connected to advances in mathematical

sciences and have allowed a Copernican revolution in financial economics, leading to new, increasingly complex and sophisticated paradigms and techniques. The use of mathematical and statistical methods should always be weighted against the advantage that may result to markets from their application; they should help address the analysis in order to solve possible risks and not to produce them.
In his essay *Economic science, money, finance and quantitative methods* Rainer Masera calls for a discussion on the characteristics of variability and dynamism of markets, which are subject to the influence of institutional, political, legal, religious, ethical and social factors: they make the interpretation of economic facts particularly difficult. The actions, reactions and feedbacks exerted by economic agents, who are subject to the influence of those factors, shift the economic studies from the abstraction of theory to the reality of markets. This is the main difference between the "hard sciences" and the social science: the former are essentially abstract, the latter must adhere to concrete facts. In particular, the ethical behavior of economic agents pushes the economic science towards social sciences and imposes prudence in the adoption of models derived from mathematics and statistics, which can lead to serious imbalances in global markets if applied uncritically, as the experience of the 2007-2010 crisis has shown.
In her essay *Scientific research methods in economics: the crisis of finance theory*, Chiara Oldani proposes an analysis of the main theoretical assumptions that have made regulators and supervisors short-sighted in the recent crisis. It explains the paradigm shift in the new frontiers of research from the classic finance to behavioral finance. The former is based on the assumptions of perfect and complete markets and of rational economic agents; the latter, rejecting the idea of a deterministic approach to markets rules, aims at approaching economics as a social science. Behavioral finance assumes the hypothesis of "imperfect rationality" of economic agents: the markets are significantly influenced by psychological factors, that should be investigated by economic science, mainly using the methods of psychology and social sciences.
The paper *Methods of economic analysis: an outline and some examples* by Salvatore Rossi deals with the traditional discussion about definition of economics as a science. The essay gives the following interpretation of economic studies: "the investigation on the regularity of behavior of individuals and of society in the

economic decisions". The methods of economic analysis consist basically in two activities: "theorizing" and "observing"; their purpose is to produce information necessary to make decisions. A "model" is the operational tool through which the two activities, theorizing and observing, can be put together. How to build a model? What are its possible uses? What the drawbacks? The examples from the experience of the Bank of Italy suggest a possible answer: sophisticated mathematical methods applied to economic modeling are certainly very useful, but their non-deterministic nature, connected with the behavior of economic agents, must be always be taken into account.

Finally, in his essay *Is economics a science? Remarks on the use of mathematics and econometrics*, Paolo Savona retraces the main steps in the development of economic studies concerning the scientific research methods applied to economics. In particular, he underlines the role played in both social and natural sciences by logic and statistical-mathematical language, which represent the basic approach to research, especially in the case of econometric methods. The research methodology should provide the necessary tools for interpretation, as faithful as possible, of economic facts, through mathematical and statistical language; for analysis of the problem observed; for comprehension of underlying causes and for identification of possible solutions.

All papers outline that research methodology is a relevant topic in all areas of science. One of the advantages of this book is to provide interesting references for further debate on the issue, not only with respect to the economic field, but also to a more general context.