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# Foundations of Economics

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Edited by  
Mauro Baranzini  
and  
Roberto Scazzieri

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# **Foundations of Economics**

Structures of Inquiry and  
Economic Theory

*edited by*

MAURO BARANZINI

*and*

ROBERTO SCAZZIERI

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# Foundations of Economics

## List of Contributors

- Maurice Allais** Professor of Economics, Ecole Nationale Supérieure des Mines de Paris, Director of the Centre d'Analyse Economique (Centre National de la Recherche Scientifique, Ecole Nationale Supérieure des Mines de Paris et Université de Paris-X)
- Michael O. L. Bacharach** University lecturer in economics and fellow of Christ Church College, University of Oxford
- Mauro Baranzini** Professor of Economics, Faculty of Law, Catholic University of Milan; formerly lecturer and tutor in economics, The Queen's College, University of Oxford
- Krishna Bharadwaj** Professor of Economics, Centre for Economic Studies and Planning, Jawaharlal Nehru University, New Dehli; currently visiting professor, Stanford University, California; formerly fellow of Clare College, University of Cambridge
- Christopher Bliss** Reader in international economics and professorial fellow of Nuffield College, University of Oxford
- Nicholas Georgescu-Roegen** Professor of Economics, Vanderbilt University, Nashville, Tennessee
- Dieter Helm** University lecturer in economics, and fellow of Lady Margaret Hall, University of Oxford
- Klaus H. Hennings** Professor of Economics, University of Hanover; formerly lecturer in economics, University of Reading, and tutor and lecturer in economics, St Edmund's Hall, University of Oxford
- John R. Hicks** Fellow of All Souls' College, University of Oxford; formerly Drummond Professor of Economics, University of Oxford
- Michael A. Landesmann** Fellow of Girton College, University of Cambridge, and research officer, Department of Applied Economics, University of Cambridge
- Luigi L. Pasinetti** Professor of Economic Analysis, and Chairman of the Department of Economics, Catholic University of Milan; formerly reader in economics, University of Cambridge and fellow of King's College, Cambridge

**Alberto Quadrio-Curzio** Professor of Economics, Faculty of Political Sciences, and Director of the Centre for Research in Economic Analysis, Catholic University of Milan; formerly Chairman of the Faculty of Political Sciences, University of Bologna

**Roberto Scazzieri** Professor of Economics, Faculty of Political Sciences, University of Bologna

**Bernard Schmitt** Professor of Economics, University of Dijon (France) and University of Fribourg (Switzerland), Director of the Centre d'Etudes Monétaires et Financières of Dijon (Centre National de la Recherche Scientifique)

## Preface

This volume is about the conceptual foundations of theory building in economics. This topic took shape after several years of work in economic theory. In particular, Mauro Baranzini has organized, over a number of years, the economic theory seminar at The Queen's College, University of Oxford, in which special attention was given to the assessment of comparative theories. He has also edited a selection of the papers presented at that seminar (*Advances in Economic Theory*, Basil Blackwell, 1982). On his side, Roberto Scazzieri has been involved, since 1977, in a research project on comparative theories in the history of economic thought, the results of which are in course of publication (*Protagonisti del pensiero economico*, edited jointly with A. Quadrio-Curzio, Il Mulino, 1977–83, five volumes). The apparent persistence of conflicting views in our subject convinced us of the need of a thorough examination of the structures of inquiry in economic theory, seen as the unfolding of a plurality of research lines. To this purpose we have gathered a number of closely connected contributions specifically written by economists working from different points of view on the foundations of our subject.

The conception and planning of the volume and the editing of the papers are the product of long hours of common work and discussion. Chapter 1 ('Knowledge in Economics: A Framework') is also the product of common thinking. However, each of us has been principally responsible for individual sections: sections I, II and III are due to Roberto Scazzieri, sections IV and V are due to Mauro Baranzini, whereas the work for sections VI and VII is common. It goes without saying that the final text is the outcome of thorough discussion and mutual criticism.

Mauro Baranzini and  
Roberto Scazzieri

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M.B. & R.S.



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# Knowledge in Economics: A Framework

MAURO BARANZINI AND ROBERTO SCAZZIERI

## I CONFLICTING VIEWS AND THE GROWTH OF KNOWLEDGE IN ECONOMICS

Economists often attribute the existence of disagreement within their own profession to error and incompetence, if not to fraud. Maffeo Pantaleoni, the friend of Walras and Pareto, once wrote that, in economics, there are two 'schools' continually at war with each other: one whose followers know economics, and another whose followers do not (Pantaleoni, 1897, p. 502). Such extreme positions reflect a misconception about the role of unanimity in the growth of knowledge, and should not deter economists from recognizing that their subject, like most other disciplines, is in fact open to a variety of points of view, many of which may lead to distinct lines of research.<sup>1</sup>

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<sup>1</sup> A *line of research* is here defined as a sequence of theories sharing certain thematic concepts and hypotheses, such that each theory can be located as a step on a given trajectory (this condition requires that the theory under consideration depends on theories previously formulated along the same line, and/or that this theory is essential in the formulation of the subsequent theories in that line). Distinct lines of research may have a number of points in common, for a given theory can be influenced by theories belonging to line of research A, while being, at the same time, essential to the formulation of another theory, which belongs to line of research B. A different conception of 'line of research' has been used by Papineau, with the aim of stressing continuities in scientific change (Papineau, 1979, pp. 107–9). Our formulation of this concept aims at covering both the continuities and the cases in which, even at the most basic level of research, the scholars of a given discipline seem to accept different thematic concepts and hypotheses (this latter case seems to be excluded by Papineau). A line of research is distinct both from a Kuhnian paradigm and from a Lakatosian research programme. The reason for this is that many different paradigms could be located on the same line of research (a given research line could be compatible with different problem-solving strategies and with different standards and methods of research). On the other hand, any given line of research may connect different scientific research programmes with each other (a certain theory might depend for its formulation on a theory developed within an alternative programme, without implying that the two programmes are the same).

The work of philosophers and historians of science has indeed dispelled the conventional view of scientific progress as a sequence of periods, each dominated by a single ruling theory. As Sir Karl Popper has pointed out, this latter interpretation 'does not fit, for example, the evolution of the theory of matter; or of the biological sciences since, say, Darwin and Pasteur. In connection with the problem of matter, more especially, we have had at least three dominating theories competing since antiquity, the continuity theories, the atomic theories, and those theories which tried to combine the two' (Popper, 1970, pp. 54–5). Indeed, according to Popper, 'there was, ever since antiquity, constant and fruitful discussion between the competing dominant theories of matter' (Popper, 1970, p. 55). This point of view of Popper has been reinforced by Imre Lakatos's contention that in the evolution of sciences 'research programmes have achieved complete monopoly only rarely and then only for relatively short periods, in spite of the efforts of some Cartesians, Newtonians and Bohrians. *The history of science has been and should be a history of competing research programmes (or, if you wish, "paradigms"), but it has not been and must not become a succession of periods of normal science: the sooner competition starts, the better for progress*' (Lakatos, 1970, p. 155; author's italics).

It would be a pity for economics, if our subject could not provide at least as fertile ground as the analysis of matter or biology for that special kind of critical discussion that is associated with competition between alternative lines of research. Indeed, it would be remarkable to find a body of knowledge so immediately relevant to social and political issues, and yet based on a single research programme common to all the scholars of the field – something that is far from the case even in the natural sciences.

If the dynamics of scientific knowledge are reconstructed as the outcome of the competition and mutual influence between distinct lines of research, there is no reason why economics should be an exception. Indeed, if it is accepted that an essential ingredient in the progress of knowledge is provided by 'a critical discussion and a comparison of the various frameworks' (Popper, 1970, p. 56), it appears that the times in which economics provides least scope for such a discussion are also periods in which economic knowledge is most prone to fall under the influence of particular interests and ideologies.

The above considerations suggest that economists should not give up the habits of critical thinking and rational discussion about frameworks, if economics is to maintain certain features that characterize the pursuit of 'objective knowledge' in general.<sup>2</sup> In particular, a more positive attitude

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<sup>2</sup> One possible way of defining 'objective knowledge' is suggested by Popper:

There is knowledge in the subjective sense, which consists of dispositions and expectations. . . . But there is also knowledge in the objective sense, human

towards disagreement between economists is required, together with the explicit acknowledgement that the evolution of economics has often consisted of the almost simultaneous development of separate lines of research.

Such an approach to the past and present of our discipline might appear to be vitiated by epistemological relativism, and to be incompatible with the identification of what economic knowledge is. This would certainly be the case if it is believed that 'science grows by repeated overthrow of theories with the help of hard facts' (Lakatos, 1970, p. 97).<sup>3</sup> It would also be true if it is assumed that 'simplicity' is the standard by which alternative theories can be compared, so that scientific progress ought to be identified with the replacement of complex theories by increasingly simpler ones.<sup>4</sup> But the above criticism would not apply if the dynamics of (objective) knowledge are reconstructed as a network of lines of research, in which new problems might emerge from work conducted within different scientific traditions, and in which a new theory is 'progressive' when 'our discussion shows that it has really made a difference to the problems we wanted to solve; that is, if the newly emerging problems are different from the old ones' (Popper, 1981, p. 288).<sup>5</sup>

As this latter position is taken, the coexistence of distinct lines of research appears not as an anomaly, but as the normal pattern of 'scientific progress'. And the standard by which to measure the growth of objective knowledge would be given not by a simple criterion for theory choice (as the inductivist or the conventionalist one), but by an evaluation of how worthwhile it is to work within any particular line of research. It is thus possible to have disciplines, or periods in the evolution of any given discipline, in which 'The rivalry of two research programmes is . . . a protracted process during which it is rational to work in either (or, if one can, in both)' (Lakatos, 1978, p. 112n). Under such conditions, as Lakatos pointed out, 'It is very difficult to decide, especially since one must not demand progress at each single step,

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knowledge, which consists of linguistically formulated expectations submitted to critical discussion. . . . Subjective knowledge is not subject to criticism. . . . As opposed to this, objective knowledge can change and grow by the elimination . . . of the linguistically formulated conjecture: the 'carrier' of the knowledge can survive – he can, if he is a self-critical person, even eliminate his own conjecture. (Popper, 1981, p. 66)

<sup>3</sup> This position characterizes the inductivist reconstructions of the history of science.

<sup>4</sup> This position is characteristic of the conventionalist reconstructions of the history of science.

<sup>5</sup> The progressive character of a theory meeting this requisite is ascribed by Popper to the fact that, 'If the newly emerging problems are different then we can hope to learn a great many new things when we proceed to solve them in their turn' (Popper, 1981, p. 288).

when a research programme has degenerated hopelessly or when one of two rival programmes has achieved a decisive advantage over the other' (Lakatos, 1978, p. 113). Indeed, 'One must realise that one's opponent, even if lagging badly behind, may still stage a comeback' (Lakatos, 1978, p. 113). If this is so, the growth of 'objective knowledge' is a process in which the coexistence of 'rival' lines of research is the dominant feature, and where any given line may be superseded by the same 'rival' line over which it once exerted a temporary dominance, at some earlier period of intellectual history.

If the above point of view is adopted, the dynamics of (objective) economic knowledge may be reconstructed as a sequence of changes in the dominant focus of attention, where the shift from one focus to another can be reconstructed as a shift from an (at least temporarily) stagnating line of research to an (at least temporarily) progressing one.<sup>6</sup>

If this is so, it would be possible to trace (at least in principle) the growth of 'objective' economic knowledge, and to allow at the same time for the coexistence in our discipline of distinct lines of research. For the growth of objective knowledge is possible, even in the case of a discipline characterized by repeated defeats and comebacks of the same fundamental lines of research, as long as the switch-points between lines of research coincide with situations in which the line that comes to be more widely followed appears to be more promising (i.e. leading to discoveries at a faster rate) than the line that is temporarily 'shelved'. (Of course, this may not be the whole story, since 'external' history often has to supplement the 'internal' history of the discipline in order to explain both the changing speed of progress within any given line of research and the relative importance of each line within the discipline.)

It is the purpose of this volume to contribute to the appraisal of the view that economic knowledge is to be associated with the concurrent development of two distinct lines of research, one dealing primarily with allocation and choice (the 'exchange' research line), the other dealing primarily with social organization, production and structural change (the 'production' research line).

This chapter provides a general framework for the papers in parts I-IV. The plan of the remaining sections of this chapter is as follows. Section II discusses the recent literature, in which the dynamics of economic knowledge are reconstructed in terms of the mutual influence and 'competition'

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<sup>6</sup> A line of research is stagnating or progressing, depending on how frequently connected discoveries are made by the scholars working within its boundaries. A progressing line of research would thus be characterized by the clustering of discoveries around certain central themes. A stagnating line of research, on the contrary, would be characterized by a low frequency of connected discoveries and by a great dispersion of themes.



between the 'exchange' and 'production' lines of research. Section III examines whether the distinction between the above research lines could be explained by a deeper gulf between different views about the 'scope and method' of economics. Section IV presents in detail the 'ideal' models behind the exchange and production research lines. Section V examines various methodological issues arising from the 'exchange' versus 'production' duality. Section VI tackles the issue of the possibility of 'general' and 'objective' laws in economics. Finally, section VII presents brief introductions to the papers of parts I–IV and discusses a number of topics of further research that this volume brings to light.

## II THE 'EXCHANGE'–'PRODUCTION' DUALITY

At first sight, it might appear to be difficult to identify the distinctive features of the exchange and production research lines in economics, particularly because the empirical domains of these two lines tend to overlap, if such lines are compared at some late stage of development.

To identify alternative (and possibly 'competing') lines of research requires special consideration of the fact that what we are after are rival scientific traditions, whose 'hard cores' may be concerned with different sets of phenomena, but that tend to stretch themselves so as to cover the whole field of economic inquiry. Two rival lines of research, when considered at a relatively mature stage of development, would normally offer alternative explanations of a common set of phenomena, even if the respective empirical domains do not need to coincide. In addition, neither research line should be too shortlived, and the comeback of certain themes and hypotheses that had been previously 'shelved' should count as an important element for identifying such themes and hypotheses as essential to any given line of research.

In the case of economics, an initial concentration of attention on certain aspects of exchange or production, respectively, often led to the formulation of 'ideal' models of the economy in which what is essential in one model appears to be of secondary importance, or altogether irrelevant, in the other model. This may be clearly seen by comparing Ricardo's and Jevons's approaches to the theory of value.

According to Ricardo:

Utility . . . is not the measure of exchangeable value, although it is absolutely essential to it. If a commodity were in no way useful, – in other words, if it could in no way contribute to our gratification, – it would be destitute of exchangeable value, however scarce it might be, or whatever quantity of labour might be necessary to procure it. Possessing utility, commodities