Pierangelo Garegnani (1930-2011)

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Pierangelo Garegnani passed away on 15 October 2011. Born in Milan in 1930, he studied economics and political science at the University of Pavia. He wrote his Master's thesis on Ricardo's theory of value, stimulated by Piero Sraffa's general introduction in volume I of *The Works and Correspondence of David Ricardo* (Sraffa 1951). The thesis won him a Trinity College grant, which allowed him to study in Cambridge, U.K., from 1953 on. In 1958 he obtained a Cambridge Ph.D. in Economics. His thesis on 'A problem in the theory of distribution from Ricardo to Wicksell' was supervised by Maurice Dobb, but the main influence on his thinking came from Sraffa. While the thesis was never published, a revised Italian version entitled *Il capitale nelle teorie della distribuzione* came out in 1960 (Garegnani 1960), was soon translated into Japanese, French and Spanish and established Garegnani's reputation as a major young economic theorist. In 1958 he became an assistant professor in Rome and worked also for SVIMEZ, a public research institute devoted to studying the possibilities of developing Southern Italy. In 1964-65 he published, in two instalments, an essay on the problem of effective demand in Italian economic development. A revised version in English entitled 'Notes on consumption, investment and effective demand' came out in 1978 and 1979 (Garegnani 1978-79). In 1961-62 a Rockefeller Foundation fellowship brought him to the Massachusetts Institute of Technology (MIT), where he met Paul Samuelson and Robert Solow. There he read the not yet published paper of Samuelson on 'Parable and realism in capital theory: the surrogate production function' (Samuelson 1962). In it Samuelson argued that the so-called 'Clark-Ramsey parable' of production and income distribution portrayed in important respects the situation in an economy with a multiplicity of capital goods. He based his argument on the bold assumption of uniform capital-labour ratios of the machine producing and the consumer good producing industries. Garegnani pointed out to him that the argument presupposes the validity of the labour theory of value as a theory of normal prices and objected that it does not apply to the only interesting case of different capital-labour ratios. Therefore, the argument could not possibly defend the parable. It is remarkable that while in a footnote Samuelson acknowledged Garegnani's objection, he nevertheless published the paper as it was. The footnote reads: 'I am grateful to Professor Piero A. Garegani [sic] of Rome … for saving me from asserting the false conjecture that my

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extreme assumption of equi-proportional inputs in the consumption and machine trades could be lightened and still leave one with many of the Surrogate propositions. I hope he will publish his note showing why the Surrogate case is so special' (Samuelson 1962: 202, fn. 1).

Garegnani was appointed to chairs in economics at the Universities of Sassari, Pavia, Florence and in 1974 at Rome's 'La Sapienza'. In 1973-74 he was a Visiting Professor of Cambridge University and a Fellow of Trinity College, which was also Sraffa's college. In the 1980s he was a recurrent Visiting Professor of the New School for Social Research, New York. He was one of the founders of the new Faculty of Economics of the University of Rome III in 1992, where he taught until his retirement.

From 1980 to 1990 he directed, together with Sergio Parrinello and Jan Kregel, the annual Trieste International Summer School, which brought together, from all over the world, economists with a critical orientation towards today's mainstream. The school was of crucial importance to the intellectual development of many senior and junior fellows (including this writer). Many friendships and productive relationships developed during these years.

Piero Sraffa, who passed away in 1983, in his will appointed Garegnani his literary executor. Garegnani set up a group of scholars (including this writer) to prepare the edition of Sraffa's papers and correspondence, established the Fondazione Centro Piero Sraffa di Studi e Documenti at the University of Rome III and served as its Director. He was not given the time to accomplish the important and complex task of publishing the Sraffa edition.

Garegnani was a major economic theorist who had a huge impact on the revival of the classical approach to the theory of value and distribution in the aftermath of the publication of Sraffa's edition (with the collaboration of Maurice Dobb) of Ricardo's *Works and Correspondence* (Ricardo 1951-73) and Sraffa's 1960 book *Production of Commodities by Means of Commodities* (Sraffa 1960). In the preface to his book Sraffa wrote that the book was designed to lay the foundation for a critique of marginalist theory. He added: 'If the foundation holds, the critique may be attempted later, either by the writer or by someone younger and better equipped for the task.' (1960: vi) Garegnani was one of those younger scholars. He saw himself confronted with essentially three tasks: (i) to accomplish the critique of the different versions of the marginalist theory; (ii) to contribute to the reconstruction and further development of the classical approach and to relate it to other critical orientations in economics, especially Keynes's contribution; and (iii) to investigate why the classical approach was prematurely abandoned and replaced by marginalism, and what were the reasons for discontinuity and change in the latter's development.

Garegnani was at the forefront of those who carried out the critique in the so-called 'Cambridge controversies in the theory of capital'. In papers published in the *Quarterly Journal of Economics* Garegnani (1966) and others, particularly Luigi Pasinetti, another major student of Sraffa's, showed that David Levhari, a student of Samuelson's, was wrong in claiming that the reswitching of techniques was impossible, that is, that entire systems of production can be ordered according to 'degrees of mechanization'. And in his paper on 'Heterogeneous capital, the production function and the theory of distribution' Garegnani (1970) showed that the long-period marginalist theory cannot generally be sustained. Samuelson's defence of it in terms of the so-called 'surrogate production function' was mistaken for the reason given above. Actually, the assumption of uniform input proportions implied that the 'real' economy with heterogeneous goods was turned into an 'imaginary' economy with a homogeneous output. Garegnani's paper became one of the most influential and most often cited essays in the capital controversies.

While the first round of criticism of marginalist theory was devoted to the latter's long-period version, centred around the concept of a uniform general rate of profits, Garegnani at an early stage carried over the criticism to more recent versions of marginalism, that is, temporary and intertemporal general equilibrium theory. This involved him in debates with Paul Samuelson and Frank Hahn. In his paper 'On a change in the notion of equilibrium in recent work on value and distribution: a comment on Samuelson' (Garegnani 1976) he explained the shift from long-period to short-period concepts of equilibria essentially as the result of the dead end into which marginalist theory had got because of its deficient concept of capital. These versions of marginalism tried to preserve the basic demand and supply approach to the problems at hand, but abandoned a concern with the centres of gravitation, characterized by a uniform rate of profits, towards which the economic system was understood to move, given the self-seeking behaviour of agents. However, as Garegnani maintained in a number of contributions (see, in particular, Garegnani 2000 and 2003), the new types of equilibrium concepts were beset by a number of difficulties. In particular, there was no sufficient persistence of equilibrium: since the endowment of the economy with capital goods was taken to be arbitrary, endowments would change quickly and deprive the equilibrium of its traditional role as an attractor, towards which market values tended to move. It was also not true, as the advocates of temporary and intertemporal theory contended, that it was immune to the capital theoretic critique, because it did not advocate the concept of 'capital' as a single factor of production. As Garegnani argued in several papers (Garegnani 1990a, 2000, 2003), the stability of the savings-investment market that is implicit in the theory presupposes that the demand for investment, i.e. ‘free capital’, is inversely related to the rate of interest. This presupposition, however, cannot be sustained in the case of capital-reversing, which means that the proclaimed generality of the theory falls to the ground.

As regards the reconstructive task, Garegnani forcefully supported Sraffa’s argument that there was a classical theory of value and distribution that was fundamentally different from the marginalist one. As Sraffa had shown, a logically consistent version of the classical theory could be elaborated that sheds the weaknesses of its earlier formulations in David Ricardo and Karl Marx and elaborates on its strengths. Garegnani provided compelling support of Sraffa’s interpretation that the classical economists from Adam Smith to Ricardo and then Marx had determined the general rate of profits and relative prices in terms of the following ‘intermediate’ data (i.e. data in the theory of value and distribution, but variables in other parts of the theory): (a) the gross output levels of the various commodities, (b) the real wage rate(s) or the share of wages in national income and (c) the technical conditions of production actually in place (Garegnani 1981, 1984, 1987). Most important, in the classical economists the distributive variables, the rate of profits and wages, were not explained in terms of the marginal productivities of capital and labour. They were rather seen to be the outcome of a ‘dispute’ between two ‘parties’, the ‘workmen’ and the ‘masters’, ‘whose interests are by no means the same’, as Adam Smith had stressed (WN, I.viii.11). Garegnani (1987) also provided an alternative formulation of the constraint binding changes in the real wage rate and the rate of profits in terms of the concept of a ‘vertically integrated wage goods industry‘. And he entered into a discussion of the problem of ‘gravitation‘ of market prices to their natural levels and provided an argument in favour of gravitation that draws on the circular character of production (Garegnani 1991).

In accordance with Sraffa, Garegnani (1981, 1984 and elsewhere) insisted that the classical surplus-based approach does not stand or fall with the labour theory of value. Therefore it did not come as a surprise that Garegnani got involved in debates with some Marxists, who contend that the labour theory of value is indispensable in demonstrating the ‘exploitative’ nature of profits. According to Garegnani this involves a misunderstanding. Already the fact that workers do not get the whole net product could be read in this way. More important, when Marx was writing, that is, before marginal productivity theory began to filter into the academic and public discourse, one might still have been content with the observation that positive profits presuppose a positive surplus value (or surplus labour). But once marginalist theorists had argued that profits do not express exploitation but rather the productivity enhancing effect of the employment of capital, an entirely new situation emerged. What if marginal productvity theory happened to be correct? As Samuelson's surrogate production function shows, marginal productivity theory and the labour theory of value are not incompatible with one another.[1] Therefore some modern Marxists' preoccupation with the labour theory of value appears to be fundamentally misguided. What is needed is the demonstration that marginal productivity theory in its various forms cannot be sustained. This explains Garegnani's relentless endeavour to scrutinize critically the various pronouncements of the marginalist doctrine.

As regards the interpretative task, Garegnani was variously involved in debates about the classical economists with Paul Samuelson (see below) and also with Samuel Hollander, Mark Blaug and, indirectly, with John Hicks. Shortly before Garegnani passed away his recent reply to Blaug was published, which concludes: 'the classical revival entails a systematic change in the way we should look at the phenomena of a competitive market economy and therefore at the basis of economic policy' (Garegnani 2011: 603). Hence, his concern with a revival of classical economics, far from expressing an antiquarian interest, was meant to improve our understanding of present-day economic problems and the economic policy tackling them. Garegnani's study of the history of economic thought had as its deeper motivation always a vivid concern with the problems of our time.

An important part of Garegnani's work deals with the implications of the revived classical theory of value and distribution for the theory of output, employment and capital

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[1] In this context it is perhaps useful to to draw the reader's attention to the fact that in a note written as early as 16 January 1946 Sraffa had anticipated *ante litteram* the flaw in Samuelson's argument and also in that of several Marxists, who cling to the labour theory of value:

'The Irony of it is, that if the "Labour Theory of Value" applied exactly throughout, then, and only then, would the "marginal product of capital" theory work!

It would require that all products had the same org.[anic] comp.[osition]; and that at each value of *r* [rate of interest or profits] each comm.[odity] had an "alternative method", and that the relations within each pair should be the same (i.e. that marg.[inal] prod[uct]s. should be the same; + also the elasticities should be the same); so that, even when the System is switched, and another Org. Comp. came into being, it should be the same for all products.

Obviously this would be equivalent to having only one means-product (wheat).

Then, commodities would always be exchanged at their Values; and their relative Values would not change, even when productivity of labor [sic] increased.' (Sraffa Papers D3/12/16: 34; Sraffa's underlinings)

The reference is to Sraffa's papers kept at Trinity College Library, Cambridge (U.K.), as they were catalogued by Jonathan Smith, archivist.

accumulation (see also Garegnani 1979). It is ironic to see that the classical approach, coherently developed, actually undermines Say's law – the law for which Keynes had thought he could put classical analysis to one side. If we cannot rely upon the conventional principle of substitution in production according to which the demand for an input (e.g. labour) per unit of output can be expected to increase as the price (the wage rate) of the input falls, then there is no reason to presume that the economy will bring about a tendency towards the full employment of all productive ressources. This result does not depend on the (downward) stickiness of prices. Even if prices are flexible, a fall in the real wage rate need not lead to rising levels of employment, as conventional economic theory predicts.[2] Garegnani praised Keynes for having established the principle of effective demand, that is, there is no presumption that aggregate investment will oscillate around full employment savings. However, he was critical of Keynes for having retained important elements of the marginalist doctrine and especially the concept of the 'marginal efficiency of capital', which was but the orthodox investment function in new garb. Yet the concept could not be sustained, because it was based on the untenable marginalist principle of substitution between factors of production.

With the analysis not constrained by the straightjacket of the full employment assumption, one does not encounter in classical economics such concepts as Pareto optimality: a system which, in normal conditions, exhibits smaller or larger margins of unused productive capacity and work force is subject to different laws than a system characterized by full employment and full capacity utilization. In conditions of idle productive capacity the usual marginalist reasoning does not apply. In the marginalist world aggregate effective demand, by definition, has no impact on actual output as a whole and its growth over time, whereas in the world of the revived classical economics it has. According to Garegnani the principle of effective demand matters, in the long run no less than in the short run. While in the short run it is reflected in higher or lower degrees of capacity utilization and employment, in the long run it is reflected in a larger or smaller growth rate of productive capacity. From this insight follows that the so-called Cambridge theory of income distribution, championed by Nicholas Kaldor,

[2] Interestingly, a positive rate of interest is not indispensable in order to see that nonconventional results may emerge even in conditions that appear to be favourable to the marginalist approach, provided one focuses attention on *full* industry equilibrium. As Ian Steedman and Arrigo Opocher have shown in a number of papers and now in a book in progress (Opocher and Steedman 2012), even with a rate of interest equal to zero there is generally no reason to presume that quantities of factors employed (per unit of output) are inversely related to 'factor prices'.

to the extent to which it supposes full employment of labour, cannot be considered a convincing generalization of the principle of effective demand from the short to the long period.

Much of Garegnani's work is devoted to a critical assessment of the contributions of Paul Samuelson (see Garegnani 1990b and 2007a,b), who was arguably one of the most, if not *the* most, influential economist of the last century and had a tremendous impact on the course economics took. Samuelson was very much intrigued by Sraffa's work, but for reasons that are not totally clear to me advocated the concept of a 'Whig history' of economics (Samuelson 1978 and 1987), according to which all economic theories, past and present, are essentially more or less crude contributions to marginalism. He thus disputed Sraffa's view that there is a distinct classical approach to the theory of value and distribution, which is fundamentally different from the marginalist one. Garegnani in a number of papers showed that Samuelson's view is difficult to sustain. His perhaps most important contribution in this regard is his essay 'Professor Samuelson on Sraffa and the classical economists' published in *EJHET* (Garegnani 2007a). There he argues that a main difference between the classical and the marginalist approach is a very different explanation of the level of wages and, consequently, of profits. This has implications for basically all other fields of economic analysis and strongly supports Sraffa's claim that there is an alternative to marginalist economics. In my opinion Garegnani's essay is a must for all historians of economic thought and economists generally, first, because it deals with two main orientations in economic theory about which each and every economist ought to have an informed opinion, and, secondly, because it provides a checklist in terms of which one can discriminate between different economic theories. The historian of economic thought should, of course, also read Samuelson's reply to Garegnani and the latter's rejoinder, all published in *EJHET*.[3]

Pierangelo Garegnani was a major economic theorist and historian of economic analysis. To him economic theory and its history were but two sides of a single coin. He was possessed of great intellectual power and an uncompromising dedication to his work, which in the tradition of Piero Sraffa propelled the revival and further elaboration of classical political economy. As a person he was not always easy to deal with – the solemnity of purpose, as he saw it, could overshadow his behaviour. He was one of the deepest thinkers I encountered. His work can be expected to have a lasting impact on the economics profession.

[3] The controversy between Garegnani and Samuelson regarding historico-doctrinal questions is going to be reprinted in a single volume; see Garegnani and Kurz (2012).

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