

political economy Studies in the Surplus Approach

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Brief Notes on Sraffa's Reappraisal of the Surplus Approach

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1. This Journal, which draws its inspiration from the work of Piero Sraffa, comes into being 25 years after the publication of *Production of Commodities by Means of Commodities*¹. In these brief notes, starting with some observations on Sraffa's last work, I shall try to consider the singular course of the major theoretical activity of a scholar who has frequently been called one of the greatest economists of this century. Piero Sraffa was certainly this century's greatest proponent of the theoretical approach to value and distribution based on the notion of "social surplus". As Sraffa himself tells us in his *Preface to Production of Commodities*, this approach had been "submerged and forgotten since the advent of the «marginal» method"². Sraffa in fact was the most penetrating critic of the marginal theory with a commitment in this critical direction which began with the article "Sulle relazioni tra costo e quantità prodotta", published in the *Annali di Economia* in 1925, and which culminated in 1960 with the publication of *Production of Commodities by Means of Commodities* — the work which involved many of the best economists of our time in a far-reaching debate.

By concentrating his attention in particular on the "key to the movement of relative prices"³ consequent upon changes in distribution, in *Production of Commodities* Sraffa was able to indicate the solution to the problem of value on which Ricardo's theory of profits had run aground (as had Marx's, albeit at a higher level of elaboration) and at the same time, to

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¹ P. SRAFFA, *Production of Commodities by Means of Commodities*, Prelude to a Critique of Economic Theory, Cambridge, CUP, 1960.

² *Ibid.*, p. V.

³ *Ibid.*, p. 12.

highlight the analytical difficulties besetting the marginal theory. In fact to reveal the "key to the movement of relative prices" consequent upon changes in distribution turns out to be the same thing as to reveal the analytical difficulties in constructing demand curves of factors of production when capital is considered as one of them. As Sraffa puts it "the reversals in the direction of the movement of relative prices, in the face of unchanged methods of production, cannot be reconciled with *any* notion of capital as a measurable quantity independent of distribution and prices"⁴. With this, the analytical base which leads to the conclusion that relative prices, distribution, level and composition of the social product are determined by the relative scarcity of the factors of production seems lost. At the same time it becomes evident that the current definition of Economics as the "science which studies human behaviour as a relationship between ends and scarce means which have alternative uses"⁵ is the *ex post* definition of a *particular theory* which gives rise to a view of the way in which the capitalist system works that is substantially different from the view arising from the analysis of the classical economists and of Marx.

2. Perhaps it was this different view as to the way in which the capitalist system works, consequent upon the analysis of two different theoretical approaches, that Professor Samuelson was alluding to when, some time ago, he wrote that "Sraffa's discovery filled a deep ideological need in the critics of the market order and encountered an effective and resounding demand"⁶. Now, whatever the particular inclinations of the classical economists and, later, of the marginalists towards the society they were living in and which they were attempting to explain with their analysis, these inclinations certainly did not by themselves exclude the possibility of arriving at the formulation of a coherent economic theory that might offer a scientific explanation of the way in which the economic system they were examining functioned⁷. The fact is rather that "capital" had shown a certain resistance to analysis in both theoretical approaches,

⁴ Ibid., p. 38.

⁵ L. ROBBINS (1932), *An Essay on the Nature and Significance of Economic Science*, London, Macmillan, 1952, p. 16.

⁶ P. SAMUELSON, "Un genio con poche opere", *Corriere della Sera*, 6 Sept. 1983.

⁷ It is true that, independent of the intentions of its formulator, a theory may lead on to a "justificationist" view of the way in which the economic system functions and give rise to consequent practical action. "Justificationist" requirements, which may be felt by any economic system, could, as regards capitalism, easily be satisfied by the view of the economic system's mode of functioning that follows on from the marginalist theory. The view that follows on from Ricardo's analysis led in a completely different direction. As Foxwell puts it, Ricardo "did more than any intentionally socialist writer to sap the foundations of that form of society which he was trying to explain and which he believed to be typical and natural if not, indeed, the ideal social state" (cf. H. S. FOXWELL, *Introduction to A. MENGER, The Right to the Whole Produce of Labour* [English translation, 1899], New York, Kelley, 1970, pp. xli-xlii).

and some of the greatest exponents of the marginalist theory were aware of this⁸, just as Ricardo was aware of the “exceptions” to his labour-theory of value, which was the way in which the analytical intractability of capital showed itself in his theory. Sraffa, by concentrating on the reasons for these “exceptions”, which is tantamount to concentrating on the analysis of the movement of relative prices consequent upon changes in distribution, arrived at the discovery mentioned by Professor Samuelson. This discovery was that “capital” can be properly treated within the classical theoretical approach by more general hypotheses than those for which the labour-theory of value is valid, and that there is no correct way of treating it within the marginalist theoretical approach, except within that limited sphere of hypotheses for which the labour-theory of value is valid.

“Sraffa’s discovery” to echo Professor Samuelson’s words, rather than filling a “deep ideological need” appears to have filled a deep analytical void common to both the theory of the classical economists and the marginal theory. That this analytical void should be filled could only be felt as a need by all economists, whatever their particular inclinations towards the “market order”: what both theories intend to do is to explain its effective functioning and not to provide some image of its functioning most in tune with our particular ideologies.

3. The sometimes violent criticisms which the early marginalist theoreticians made of Ricardo’s and Marx’s theory of value and distribution are well known⁹. It is also well known that Marshall felt the need to put a stop once and for all to the attacks against Ricardo’s theory. Suggesting a course of “generous” interpretation, he presented his *Principles* as a “harmonization” between Ricardo’s theory of value and his own theory¹⁰,

⁸ For a careful reference to the works of Walras, Wicksell and Pareto as regards their awareness of the deficiencies of their theories, see P. GAREGNANI, *Il Capitale nelle teorie della distribuzione*, Milano, Giuffrè, 1960, Part II, Chap. III, Sec. IV; Chap. VI, Sec. V; Appendix G, Sec. I and IV.

⁹ Jevons’s attack on Ricardo’s theory is the best known if only because it was explicitly chosen by Marshall to reply to the “somewhat similar attacks on Ricardo’s theory of value” which “had been made by many other writers”. Among the “many other writers” Marshall mentions Menger, Walras, Böhm-Bawerk and Wieser (A. MARSHALL, *Principles of Economics* [1890; 8th ed. 1920], London, Macmillan, 1969, pp. 675-76). For a detailed reference to the works of some of the economists who attacked Ricardo’s theory, see T. W. HUTCHISON, “Some Questions about Ricardo”, *Economica*, Nov. 1952, p. 422 n. 1. Jevons’s position vis-à-vis what he called the “Ricardo-Mill school” is contained in W. S. JEVONS, *Preface* to the 2nd ed. (1879) of his *The Theory of Political Economy* (1871), Harmondsworth, Penguin Books, 1970, in particular, p. 72. Walras refers approvingly to this *Preface* by Jevons in the *Preface* to the 4th edition of his *Elements* (L. WALRAS, *Elements of Pure Economics* [1874; 4th ed. 1900], London, Allen & Unwin, 1954 [W. Jaffé ed.], p. 45).

¹⁰ See A. MARSHALL, *op. cit.*, *Preface* to the 1st edition, p. V; Book V, Chap. XV, par. 5, pp. 416-17; Appendix I. In Appendix I, where Marshall attempts to argue that the marginal theory does not imply any “breach of continuity” with Ricardo’s theory, in contrast to what most of the founders of the marginal theory held, he states as a premise to his arguments: “If... we seek to understand him (Ricardo) rightly, we must interpret him generously... If we do this... his doctrines though very far from complete, are free from many of the errors that are commonly attributed to them” (*Principles*, p. 670).

thus uprooting the basis of Marx's theory of value and distribution, and in this manner causing Marx to be relegated to that multifarious "underworld" referred to by Keynes in his *General Theory*. Marshall's enormous influence brought about, together with this "harmonization", the end of the controversy over the two distinct theoretical approaches, and the old approach, with its unresolved analytical difficulties, was "submerged and forgotten".

4. Evidently Sraffa did not waste his time in futile pursuits even as a young man, for he chose Marshall's theory as the target for his first theoretical writings: the article already cited, *Sulle relazioni tra costo e quantità prodotta*, and *The Laws of Returns under Competitive Conditions* which became more famous since it was published in English, as well as *A Criticism* and *Rejoinder* in the Symposium on *Increasing Returns and the Representative Firm*¹¹.

While this first group of writings concentrates basically on the laws of returns underlying the supply curve of partial equilibria in Marshall's theory of value, the opening pages of the first two articles also indicate that one of the reasons for the difficulties encountered by Marshall's theory was that it had put together heterogeneous elements from the classical theory in order to construct a new law of value. These aspects — the way in which Marshall attempted to "harmonize" two alternative theoretical systems and the impossibility of this harmonization — are of considerable interest today. The effect that these writings had at the time is probably well described by Sir A. Robinson when he tells us that Sraffa "had successfully breached the complacency of the 1920s and the attitude enshrined in Keynes's first preface to the *Cambridge Economic Handbooks* that Marshall had done all the necessary thinking and it was for us just to apply it"¹².

5. Sraffa however must have been particularly interested in this aspect of Marshall's "harmonization" operation since he recalled it as far back as the time when he wrote his *Obituary* for Maffeo Pantaleoni¹³. And when in 1930 the Royal Economic Society, of which Keynes at the time was secretary and Foxwell President, entrusted him with the task of preparing

¹¹ P. SRAFFA, "Sulle relazioni tra costo e quantità prodotta", *Annali di Economia*, Vol. II, n. 1, 1925; "The Laws of Returns under Competitive Conditions", *The Economic Journal*, Dec., 1926; "A Criticism" and "Rejoinder" in "Increasing Returns and the Representative Firm - A Symposium", *The Economic Journal*, March, 1930.

¹² A. ROBINSON, "Keynes and his Cambridge Colleagues", in D. PATINKIN & J. CLARK LEITH (eds.), *Keynes, Cambridge and the General Theory*, London, Macmillan, 1977, p. 27.

¹³ P. SRAFFA, "Obituary - Maffeo Pantaleoni", *The Economic Journal*, Dec. 1924, p. 650.

a new edition of Ricardo's works, he did not let the occasion slip.

It was this painstaking work¹⁴ that enabled Sraffa to bring to light the theoretical approach to value and distribution based on the notion of "social surplus" and to indicate the nature of the difficulties that Ricardo had left unresolved. Hutchison wrote of Sraffa's edition of Ricardo's works: "This edition issued by the Royal Economic Society gives Ricardo's complete works a setting and position unrivalled by any other economist's writings in English"¹⁵.

As is well known, Sraffa worked on this edition for twenty years, and only after the first ten volumes had been published, between 1951 and 1955 (the last volume, the index, was published in 1973), did he decide in 1960 to bring out his own *Production of Commodities by Means of Commodities*. It could be said that his timing was carefully calculated. As we said at the beginning, this book on the one hand indicates the solution to the analytical difficulties encountered by the theory of value and distribution of the classical economists and of Marx, while on the other it highlights the analytical difficulties that the marginal theory runs into.

The old problem of who "shunted the car of economic science on to a wrong line" thus re-emerges¹⁶. However it becomes easier to understand that it had not been correctly confronted and therefore certainly not resolved, as the early marginalist theoreticians's critiques of Ricardo's theory, or the "harmonization" of the two theoretical approaches attempted by Marshall, would have us think.

The weak point in the discussion of this problem, as it had been expounded in the early days of marginalism, was perhaps properly identified by Ashley. In a widely-known article reviewing the first edition of Marshall's *Principles*, Ashley asserted that in order to make a correct assessment of whether the two theoretical approaches were compatible or not, "there is the prior task of showing that what has come to be known as the *Ricardian doctrine* of cost of production was the *doctrine of Ricardo*" (emphasis added)¹⁷. The "Ricardian doctrine" referred to by Ashley was the one handed down by the *Principles* of J. S. Mill. It was Mill's *Principles*

¹⁴ D. RICARDO, *The Works and Correspondence of David Ricardo*, P. Sraffa ed. (with the collaboration of M. H. Dobb), 11 vols., Cambridge, CUP, 1951-1973.

¹⁵ T. W. HUTCHISON, *op. cit.*, p. 416.

¹⁶ The expression in brackets is from Jevons who described Ricardo as "that able but wrong-headed man" who "shunted the car of economic science on to a wrong line" (JEVONS, *op. cit.*, *Preface* to 2nd ed., p. 72). The problem in question has been a subject of controversy right from the early days of marginalism. With the publication of Marshall's *Principles* "The mists of ephemeral criticism are dispelled" (F. Y. EDGEWORTH, quoted by J. M. KEYNES, *Essays in Biography* [1933], London, Macmillan, 1981, p. 205). It should not however be forgotten that Edgeworth's phrase was described by Schumpeter as "the echo of Marshall's voice" (J. A. SCHUMPETER, *History of Economic Analysis*, New York, OUP, 1954, pp. 920-1, n. 3). On this controversy see also n. 9.

¹⁷ W. J. ASHLEY, "The Rehabilitation of Ricardo", *The Economic Journal*, Sept. 1891, p. 476.

rather than Ricardo's which made up a considerable part of both Jevons's and Marshall's economic training¹⁸.

What Ashley indicated as the "prior task" for a correct discussion of the compatibility or otherwise of the two theoretical approaches, i. e. the reconstruction of Ricardo's theoretical approach to value and distribution and the nature of the analytical difficulties of this approach, was at last fulfilled by Sraffa in his *Introduction to Ricardo's Principles*¹⁹.

With the ground thus carefully prepared, the analysis of the movement of relative prices consequent upon changes in distribution contained in *Production of Commodities* posed the problem of value and distribution in terms of an alternative between two distinct theoretical approaches, rather than in exclusively destructive terms, as would have happened if the gap indicated earlier by Ashley had not been filled.

6. It thus appears that it was not just out of perfectionist punctiliousness that Sraffa toiled for twenty years to complete his edition of Ricardo's works and delayed the publication of *Production of Commodities* so long. A theoretical approach that had been early abandoned, variously clouded over, and lastly, in Marshall's hands, destroyed had to be reconstructed and the nature of the difficulties that had led to its premature abandonment reconsidered. In view of this it does not seem very plausible to maintain as Professor Samuelson did some time ago and Professor P. Newman many years ago, that economic science would have been more advanced if Sraffa had published *Production of Commodities* at the end of the twenties²⁰ when, as Sraffa says in his *Preface*, "the central propositions had taken shape"²¹. At the end of the twenties no theoretical alternative was available. Keynes's position on Ricardo, who in the *General Theory* is assimilated to Marshall²² according to Marshall's own teaching, is a nota-

¹⁸ The almost total domination of J. S. MILL's, *Principles of Political Economy* [1848] over the English economists of both Jevons's and Marshall's generation was thus described by Foxwell "After the appearance of Mill's *Principles*, English economists, for a whole generation, were men of one book" (H. S. FOXWELL, op. cit., p. lxxviii). When Walras is expounding his critique of the classical theory of value and distribution, in lessons XXXVIII-XL of his *Elements*, he nearly always refers to J. S. MILL's *Principles* and seldom to Ricardo's. As regards the divulgation of classical theory in Germany, Marx says in the *Postface* to the second edition (1873) of vol. I of *Capital* that the German economists were divided into two groups: the group of "practical business folk" who "flocked to the banner of Bastiat" and the group of those "proud of the professorial dignity of their science" who "followed John Stuart Mill" (K. MARX, *Capital*, vol. I [1867], Harmondsworth, Penguin with N.L.R., 1976, p. 98).

¹⁹ P. SRAFFA, *Introduction to RICARDO'S Principles*, in *Works*, vol. I, Cambridge, CUP, 1951.

²⁰ See P. SAMUELSON, op. cit. and P. NEWMAN, "Production of Commodities by Means of Commodities", *Schweizerische Zeitschrift für Volkswirtschaft und Statistik*, März, 1962, p. 58.

²¹ P. SRAFFA, *Production of Commodities*, p. VI.

²² J. M. KEYNES, *The General Theory of Employment Interest and Money*, London, Macmillan, 1973, p. 3, n. 6; p. 32.

ble example of how Marshall's "harmonization" had born fruit, determining a situation in which it was taken for granted that only one approach to economic theory existed. The eclecticism of scholars like Dmitriev and Bortkiewicz, who had reached the point of indicating the solution to the difficulties of Ricardo's and Marx's theory of value²³, is another sign of the extent to which an alternative theoretical approach had been lost; this may partly explain why their contributions fell on deaf ears when they were published, and were properly appreciated in recent years in the course of the discussion on Sraffa's work: after, that is, with the publication of Sraffa's edition of Ricardo's works, the alternative to the marginal approach had been brought fully to light.

7. It seems, therefore, that we can rule out mere problems of perfectionism to explain the very long period of time Sraffa devoted to his edition of Ricardo's works and the exceptionally long time that elapsed between the conception and the publication of *Production of Commodities*; what we do glimpse, as we reconstruct the course of the major activity that absorbed his best energies, is rather the figure of a scholar of rare scrupulousness and scientific coherence. The problems that Sraffa opened up in economic science appear considerable, so that the work which remains to be done is certainly of no small moment. The theoretical approach based on the notion of "social surplus" was soon abandoned and thus did not develop very far as regards the problems of distribution, accumulation and levels of economic activity — just to indicate some of the problems that economists will have to tackle. As regards the marginal theory, conclusions will sooner or later have to be reached about the analytical bases on which it proceeds today.

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²³ V. K. DMITRIEV, "The Theory of value of David Ricardo" (1898) in *Economic Essays on Value Competition and Utility* (M. Nuti ed.) Cambridge, CUP, 1974; L. VON BORTKIEWICZ, "Value and Price in the Marxian System" (1906) in *International Economic Papers*, n. 2, 1952.