Piero Sraffa
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PRODUCTION OF COMMODITIES: A COMMENT

PERHAPS I may be allowed briefly to clear up two points which seem to have given rise to misunderstanding in Sir Roy Harrod's generous review of my book *Production of Commodities by Means of Commodities* (ECONOMIC JOURNAL, December 1961).

The first concerns Sir Roy's belief that the system presented must be indeterminate because it fails to take into account the composition of consumer demand. He starts from the example, in § 1 of the book, of a system consisting of two industries which produce respectively commodities *a* and *b*, and from this he concludes: " the rate of exchange of *a* for *b* is *determined*, quite simply, by the ratio of the excess production of *a* to the excess production of *b* " (p. 783, my italics). He then proceeds to consider " a greater number of industries and commodities," and here again he finds that the exchange values " are determined by the same principle " (p. 784), namely by the ratios between the excess production of the various commodities.

Now this is clearly a misunderstanding, since the exchange ratios are, of course, determined by the equations of production and not by the ratios between the excess productions of the commodities. Sir Roy has been misled by the fact that the two ratios *happen* to be equal in the first example given (a no-surplus two-commodity system which is in a self-replacing state). Even in this simplest case, however, if, with the same equations, the two commodities were produced in different proportions (so that the system ceased to be in a self-replacing state) the exchange ratio would remain the same but the ratio between the excess productions of the two commodities would be changed, so that the two would no longer be equal. In the case of a system of more than two commodities the ratios of the excess productions would not in general be equal to the values *even* in the self-replacing state.

Sir Roy, however, having adopted the notion that the exchange values are always equal to, and determined by, the ratio between the excess productions of the commodities, is led to the conclusion that a change in the composition of consumer demand "would at once, *in accordance with Mr. Sraffa's own equations*, affect the price ratios" (p. 784); and this even though the words which I have italicised necessarily imply that the methods of production would be unchanged. This misunderstanding, if I may adopt Sir Roy's own words, "runs through all the complications of his subsequent treatment."

The second misunderstanding is incidental to Sir Roy Harrod's defence of the idea of a quantity of capital and the related concept of period of production. He discusses the example given in § 48 of two industries in which "the *pattern* of the periods of production is different": "at a low rate of interest[1] a rise in the rate of interest will cause a greater rise in the price of A, at higher rates of interest a rise in the rate of interest will cause a greater rise in the price of B and at still higher rates of interest a rise will again cause a greater rise in the price of A" (p. 786). This example is a crucial test for the ideas of a quantity of capital and of period of production. Sir Roy, however, disposes of it by trying to reduce it to another and quite distinct case: namely, to the effect which a rise in the rate of interest has in raising the value of partly worn out fixed-capital goods relatively to similar goods in new condition (§ 83 of the book) and says: "this is the point that really gives rise to the *reversals* of the effect of interest increases in Mr. Sraffa's complicated example" (p. 787). That these two effects cannot be identified, and are in fact totally unrelated, will appear evident if it is considered that one of them can arise *only* in connection with the depreciation of fixed capital, while the other (the "reversals") is demonstrated in § 48 exclusively in terms of circulating capital.

The above misunderstanding arises in the course of Sir Roy's attempt to simplify my exposition by reducing two distinct cases to one. But whether two or one, what they show is that it is not possible to define the quantity of capital and the period of production in a way that makes them independent of the rate of interest. These results, of course, cannot possibly "damage"

[1] The term "rate of profits" is exclusively used in the book, but the review always replaces it with "rate of interest." I have here followed the terminology of the review, instead of my own.

the definitions suggested by Sir Roy himself, since the latter are explicitly made to depend upon " *a given rate of interest* " (pp. 786–7). One can only wonder what is the good of a quantity of capital or a period of production which, since it depends on the rate of interest, cannot be used for its traditional purpose, which is to determine the rate of interest.

PIERO SRAFFA

Trinity College,
Cambridge.