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Actual and Normal Magnitudes: A Comment on Asimakopulos*

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I. On a long-period analysis of investment and outputs

1. In his paper "Keynes and Sraffa: Visions and Perspectives", published in this journal, Professor Asimakopulos writes:

> "The short-period equilibrium of employment determined by these fluctuating investments, will also fluctuate. There is no reason to expect from Keynes's analysis that these fluctuations will be around some full employment level".[1]

In this and similar passages[2] Asimakopulos is in fact asserting the need for, and possibility of, a long-period analysis ascertaining, *e.g.*, that the cyclical fluctuations of the social product will not be around a full employment level. It is therefore with a certain surprise that one reads elsewhere in the paper about the irrelevance or impossibility of a long-period analysis.[3] And this occurs already when the author continues the above passage as follows:

> "there are no 'normal' long-period values that serve as centres of gravitation for actual values in Keynes's theory".[4]

However, is not the statement that there is no reason to expect short period fluctuations around a full employment level, the same as stating a particular negative, property of the 'normal' long-period level of employment around which the short-period levels fluctuate — namely the property that it will not be a full employment level?

* A. Asimakopulos's paper which P. Garegnani comments on (*Political Economy*, vol. 1, n. 2, 1985, pp. 33-50) was presented at the Conference on "Sraffa's *Production of Commodities by Means of Commodities* after 25 Years", promoted by *Political Economy* and held in Florence in August 1985. Both Professor Garegnani's Comment and Professor Asimakopulos's Reply (below, pp. 259-62) will be published in the Proceedings of the Conference.

[1] A. Asimakopulos, "Keynes and Sraffa: Visions and Perspectives", *Political Economy*, vol. 1, n. 2, 1985, p. 42.

[2] Cf. *ibid.*, pp. 36, 37 and 46-47.

[3] Cf., *e.g.*, *ibid.*, p. 34.

[4] *Ibid.*, p. 42.

And Asimakopulos goes further than that first negative specification of the 'normal' long-period level of employment when he writes:

> "The path traced by the short-period equilibrium output and employment over time depends — assuming that the consumption function is stable — on what happens to investment, that is on how long-term expectations and financial institutions change. A variety of possible growth paths can be deduced, each reflecting different assumptions about this drive of entrepreneurs, the degree of thriftiness of the economy, financial policies, trade union actions etc.".[5]

This does in fact specify some further properties of that centre of gravitation[6] of the actual values of outputs and employment, concerning in particular, the factors governing its change over time. Clearly what Asimakopulos refers to here as "the path traced" by the short-period equilibrium output etc., depending on "the drive of entrepreneurs, the degree of thriftiness in the economy, financial policy, trade union action etc.", is nothing but the *trend* traced by the sequence of short-period equilibria, which is just what a 'normal' long-period position is meant to explain. In fact the path of the "short period equilibria" is the moving long-period position.

2. In fact a misreading of the meaning of a long-period analysis and of the normal position associated with it seems to underlie the above contradictions. Asimakopulos writes:

> "production and employment always occur in a short-period context".[7]

However, production and employment occur instant by instant in the *actual* economy and, therefore, in the context of neither a short period, nor a long period — since both contexts are a matter of *theory* and refer, therefore, to "normal" and not to actual levels of the variables, to centres of gravitation for the actual magnitudes and not to the actual magnitudes themselves.

Accordingly, the distinction between short-period and long-period employment is not, as Asimakopulos seems to think, one between actual magnitudes and a hypothetical "centre of attraction". It is the distinction between two kinds of "centres of attraction" of the actual magnitudes, the first over a period in which productive equipment cannot change appreciably, and the second over a period in which it can so change.[8]

[5] *Ibid.*, p. 48.

[6] Cf. also *ibid.*, pp. 46-47.

[7] *Ibid.*, p. 48.

[8] I might incidentally make clear here that I do not in the least believe that "the only objects of economic analysis are the 'long-run positions' of the system ... [and that] short-run behaviour [is] irrelevant" (F. CARVALHO, "Alternative Analyses of Short and Long Run in Post-Keynesian Economics", *Journal of Post-Keynesian Economics*, VII, Winter 1984-85, p. 220 and *passim*). As I have often argued, cf., *e.g.*, P. GAREGNANI, "Notes on Consumption, Investment and Effective Demand", *Cambridge Journal of Economics*, Part I, 1978; Part II, 1979, the short-period outputs and employment are not only amenable to analysis, but Keynes's analysis of the degree of utilization

The short-period levels of the variables are therefore centres of attraction for the acqual magnitudes — they are in that exact sense 'normal' magnitudes — no less than the long-period ones. This is true to such a degree that Asimakopulos himself refers above to "short-period *equilibrium* output and employment" and reports elsewhere how Keynes argued that this equilibrium is "stable":[9] doesn't this mean that those "equilibrium", or 'normal', levels of output and employment are (short-period) 'centres of attraction' of the actual levels? It would then seem clear that economic theory, just as it must be concerned with centres of gravitation for the actual magnitudes over a period too short for productive capacity to change appreciably, must also be concerned with the analogous centres of gravitation over a period when those changes can occur. Indeed, as is well known, Keynes himself did occasionally refer to such centres, which he called "long-period positions",[10] though of course he focused on the short-period centres, which were also more immediately relevant for the economic policies he was concerned with.

3. It appears in fact that a correspondence between theoretical and observable magnitudes can normally be achieved in economics only in the way exemplified by Smith's analysis of the "*natural price*", which is the "central price" to which "the price of [the commodity is] continually gravitating".[11] It is therefore likely to be the price that emerges from some average of the actual prices, since the deviations from it will tend to compensate each other. Smith's metaphor of gravitation is perhaps more compelling when the centre of attraction is itself a spontaneous result and, besides, can be exactly defined in terms of the circumstances determining it, as is the case with the 'natural price'. The metaphor may be less telling when the central magnitude is (in the first instance) the direct result of the decisions of social bodies (*e.g.*, a money wage that results from agreement between trade unions and employers, or a rate of interest fixed by the monetary authorities) or, also, when it is less exactly determined (as is likely to be the case for a rate of investment corresponding to the trend described by its oscillations through booms and slumps). However, if what is asserted in the theory about those variables is to be valid, there must ultimately exist some forces that bring the actual magnitudes towards the levels determined in the theory, with which the former magnitudes can in fact never coincide exactly.

of capacity is obviously of the greatest importance. The question is whether we need nothing else. And once the terms of the question are correctly understood, everybody will agree that we do need something else, as the passage by Asimakopulos quoted at the beginning shows.

[9] Cf. J. M. KEYNES, *The General Theory of Employment, Interest and Money*, London, Macmillan, 1936, pp. 25-27.

[10] Cf. *ibid.*, pp. 48-49.

[11] A. SMITH, *The Wealth of Nations*, 2 voll., London, Dent & Sons, 1960, vol. I, p. 51.

4. The reasons why it is difficult for Asimakopulos to recognize this identity between the explanation of an observable economic variable and what Adam Smith described as a centre of gravitation emerge, perhaps, when Asimakopulos approvingly quotes Vicarelli's opinion that

> "in Keynes's view... there is absolutely no mechanism to guarantee that investment will *stabilise* at some long-term norm".[12]

This statement however can be seen to be almost a contradiction in terms, once it is made clear that the 'long-term norm', there denied, can only be that which emerges from the trend of that fluctuating investment. The question is not whether any variable "stabilises" in time, since in fact any moment in the economy is as likely to be affected by disturbances as the preceding one. The question is that, however wildly the actual and the short-period theoretical variable may continue to fluctuate, it inevitably describes a trend.

The question of whether a long-period analysis, with the associated long-period normal values, is, or is not, possible is therefore really that of whether the corresponding trends are, or are not, explicable in principle. And there is of course no reason why economic phenomena involving changes in aggregate productive equipment should be any less explicable than those that do not (as is shown by Asimakopulos's own passages quoted at the beginning). After all we do explain and try to forecast the trend of the price of, say, copper, on the basis of the technical changes in its mining, or of the richness of new mines, etc. — in spite of the fact that the prices of copper may fluctuate perhaps as much as 50% on either side of its trend value.

5. This may also explain why Asimakopulos appears to be incorrect in the following passage, where we have distinguished the letters A, B, and C the three propositions occurring thereby:

> "[A] Sraffa's analysis is concerned with prices of production... — where investment in the different industries has resulted in productive capacity in each that is appropriate to demand. [B] For these prices to serve as centres of gravitation for actual prices, conditions must be changing relatively slowly so that mistaken investments are relatively minor, with actual prices tending towards the prices of production... [C] Such a vision is different from that held by Keynes".[13]

Proposition [B], and hence [C], do not follow from [A] (where, "has resulted" can be taken to mean "is assumed to have resulted"). Does Asimakopulos really mean to say that prices of production provide no guidance to the behaviour of actual relative prices — that, say, the long-run fall in the price of cars or television sets relative to hotel accomodation cannot be said to

[12] Cf. A. Asimakopulos, "Keynes and Sraffa", *op. cit.*, p. 44, n. 53; our italics.
[13] *Ibid.*, pp. 49-50.

be due to the different speeds of technical progress in the respective sectors? However, mistaken investments have certainly occurred and are continually occurring in the making of cars, in that of television sets and in the setting up of hotels.

In fact the conditions that must change 'relatively slowly' in order to allow for a long-period analysis are those relating to the trend of prices, outputs etc., and their "slowness" is therefore implicit in their very conception, since it is a slowness *relative* to the forces prompting the deviations from the trend. It should then be evident that there is no reason why this slowness should exclude the possiblity of major mistaken investment.[14]

II. On Sraffa and Keynes

6. However, Asimakopulos is not likely to find universal agreement on the *content* of the claim we quoted at the very beginning of our comment, according to which Keynes's own analysis is sufficient to exclude that fluctuations of income and employment occur 'around some full employment level'. In fact, while Keynes clearly believed that deficiencies of effective demand would affect the long-period development of the economy, his analysis remained confined to the short period characterized by a given productive equipment, and its extension beyond that context clearly raises new problems.

This can be seen in particular in his analysis of the effects on the interest rate and investment of a flexibility of the ratio between the money wage rate and the quantity of money — the point on which all attempted rehabilitations of orthodox theory have essentially relied. Keynes's denial that this flexibility would entail a tendency to full employment — based as it was, in Chapter 19 of the *General Theory*, on the psychological factors summed up in the "state of confidence" — inevitably loses much of its force when the *long-period* issue of keeping the average level of investment and output sufficiently close to their full employment levels displaces the *short-period* issue of the recovery from a depression.[15] And this weakness in Keynes's argument has certainly been an important element in the success of the attempted rehabilitations mentioned above.

This brings me to the question of why I believe the "marriage of Keynes and Sraffa", as Asimakopulos puts it, is not only possible, but is already present in the facts.[16] Before explaining what I mean by this, it may however

[14] Investment by the individual entrepreneur is largely motivated by the hope of enlarging one's share of the market at the expense of other firms, and the entrepreneur is always likely to make mistakes in guessing the growth of his own market, whether the growth of the overall market of the commodity is slow or fast.

[15] Cf. P. Garegnani, "Notes on Consumption", *op. cit.*, p. 72.

[16] Cf. A. Asimakopulos, "Keynes and Sraffa", *op. cit.*, p. 34.

be necessary to clear up some frequent misreadings of Sraffa's work, traces of which may also be found in Asimakopulos's contribution. These misreadings, I believe, are a result of the elliptic character of *Production of Commodities*, and of the deep differences between the classical economists' approach and that of our contemporaries.

7. The misreadings centre on the meaning of prices in Sraffa's book. Asimakopulos writes:

> "Sraffa's system of production is set in a particular period of time, a year,[17] in which the technical relations of production and the total amount to be produced of each commodity are fixed".[18]

However, Sraffa's system of production cannot be properly said to be set in a "particular year" (the *actual* magnitudes corresponding to it, would, if anything, be a moving average calculated over *several* years). The year comes in Sraffa, just as a week or a day might, as the duration of a production cycle, or — had he assumed continuous production — merely as the arbitrary period of time over which the input and output flows are reckoned. The year, that is, comes in only to give definiteness to the representation of the process of production. Correspondingly, the technical conditions of production are not assumed to be 'fixed' any more than they are in, say, Keynes's *General Theory* or Marshall's *Principles*. And no greater invariability of course is assumed for the outputs.

Asimakopulos comes closer to facing the true meaning of the prices in Sraffa — though by denying it — when he writes:

> "Sraffa writes that the 'standpoint' of his investigation 'is that of the old classical economists from Adam Smith to Ricardo' ... but there is nothing in his analysis to justify the treatment of prices of production as values towards which actual prices tend to move. He does not deal with dynamic processes of adjustment. The only 'time' in the system is the 'year' during which production takes place, and there is no linking of 'years' — even in an informal manner — in order to indicate the possible relationship between prices of production and actual prices".[19]

However, Sraffa has in fact written that "such classical terms" as "necessary price", "natural price" or "price of production", as distinct from the equally classical term "market price", would exactly describe the prices he determines.[20] And the basic argument about such "prices of production" as the centre of attraction for actual or "market prices" — had this not been put forward by Adam Smith, together with many of his predecessors and successors, without any need for Sraffa to repeat it?

[17] Cf. P. Sraffa, *Production of Commodities by Means of Commodities*, Cambridge, CUP, 1960, p. 3.
[18] A. Asimakopulos, "Keynes and Sraffa", *op. cit.*, p. 34.
[19] *Ibid.*, pp. 35-36.
[20] Cf. P. Sraffa, *Production of Commodities, op. cit.*, p. 9.

This, I believe, also takes care of the objection Asimakopulos seems to be raising when he writes:

> "Sraffa asserts that in his system there will be an equal rate of profits in all industries. There is no attempt to justify this assumption, he simply states when setting out his price equations 'we add the rate of profit (which must be uniform for all industries)'".[21]

Again, hasn't that assumption been generally held as the necessary implication of the hypothesis of free competition?[22]

8. It should now begin to be clear why I believe that what Asimakopulos describes as

> "the fundamental differences between [Keynes and Sraffa] — the difference in the role of time and the visions of the operation of capitalist economies implicit in these theories"[23]

is an optical illusion, generated partly by the terseness of Sraffa's argument, and partly by Keynes' attempt to reach his conclusions about labour unemployment within a marginalist context — with the consequent need to rely on the psychological factors of incorrect expectations and uncertainty.

No doubt Keynes and Sraffa primarily address themselves to different problems, but the difference is ultimately that between analyses that do *complement* each other. As I have argued elsewhere[24], the limitations of Keynes's criticism of some of the basic propositions of marginal theory prevented the long-period implications he attributed to his conclusions from being developed in a conclusive manner on the basis he had provided — though the need for such a development was clearly felt at the time by Keynes and his circle.[25] Now, it appears that Sraffa's analysis may provide the two essential elements that had been missing from Keynes and which are necessary "to exclude that fluctuations ... can occur around some full employment level".

The first element is a more conclusive criticism of the traditional theory of interest than we find in Keynes's treatment of liquidity preference. Once that theory of interest is recognized as invalid for the long period no less

[21] *Ibid.*, p. 35. Cf. P. SRAFFA, *Production of Commodities*, *op. cit.*, p. 6.

[22] The rate of profits is relevant only for new investment (old plant gets quasi-rents), and there the investor plans the size of his equipment relative to expected demand, so that it might have a "normal" degree of utilisation. He therefore expects the rate of profits corresponding to that degree of capacity utilisation, that is the rate of profits which is traditionally referred to in economic analysis. The importance of the assumption of a uniform rate of profits for a correspondence between theory and observable facts is argued in P. GAREGNANI, "*Some Notes on Capital Expectations and the Analysis of Changes*", in G. FEIWEL ed., "*Joan Robinson and Modern Economics*", Macmillan, London, 1989, pp. 355, 356n.

[23] A. ASIMAKOPULOS, "Keynes and Sraffa", *op. cit.*, p. 34.

[24] Cf. P. GAREGNANI, "Notes on Consumption", *op. cit.*, Part II, pp. 75-79.

[25] Cf., *e.g.*, J. V. ROBINSON, "The Long-Period Theory of Employment", *Zeitschrift für Nationalökonomie*, 1936.

than for the short period, the adjustment of decisions to save to decisions to invest through changes in output, is an inevitable consequence, as is the possibility of deficiencies of aggregate demand, in the long period no less than in the short period.

When that criticism is effected, it will also become evident that the resulting theoretical loose end, — the behaviour of wages in the presence of unemployment is, in effect, as I argued in my paper at the Sraffa Conference, a creation of post-classical theory, and of its idea (of course by now deeply ingrained) of a "full employment real wage". And that loose end can accordingly be resolved by going back to the conception of the labour market of the classical economists up to Ricardo, whe never had the idea of such a wage.

This leads us naturally to the second element that Sraffa can provide in order to support Asimakopulos's initial claim. This second element is a basis from which to start in order to construct a theory of distribution and outputs alternative to the dominant one, incompatible as the latter is with the recognition of the role of effective demand in the long period. This basis is in fact provided by Sraffa's rediscovery and revival of the approach of the classical economists.

It is in this specific sense that I believe the "marriage of Keynes and Sraffa" or, more exactly, of Keynes and the old classical economists, to be "in the facts" — in the fact, that is, that aggregate demand controls the speed of capitalist accumulation and not just the temporary underutilization of productive capacity characteristic of the trade cycle.

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