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Is the Notion of Long-Period Positions Compatible with Classical Political Economy?

Alessandro Roncaglia *

1. I shall mainly refer to Chap. vii, Book I of the *Wealth of Nations* (henceforth, WN),¹ in discussing two related but different issues: (i) the idea that market prices gravitate to natural prices, and (ii) the idea that the economy gravitates around long-period (or 'natural') positions.

2. We all recall Smith's definition of the natural price:

"When the price of a commodity is neither more nor less than what is sufficient to pay the rent of the land, the wages of the labour, and the profits of the stock employed in raising, preparing and bringing it to market, according to their natural rates, the commodity is then sold for what may be called its natural price." (WN, I.vii.4)

This is clearly the definition of a theoretical variable, which expresses the conditions of reproduction for an economy based on the division of labour, where each productive unit has to recover its means of production in the market, at the end of the production period, by selling in the market (at least part of) its product. We need not consider here the developments of the Classical theory of value up to Sraffa. We need only note that the analytical refinements did not change the substance of the perspective underlying the Classical definition of natural prices, corresponding to Marxian and Sraffian prices of production.

3. Adam Smith's definition of market prices is also very clear:

«The actual price at which any commodity is commonly sold is called

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¹ A. SMITH, *The Wealth of Nations*, ed. by R. H. Campbell and A. S. Skinner, Oxford, Oxford University Press, 1976, 2 vols.

its market price. It may either be above, or below, or exactly the same with its natural price.” (WN, I.vii.7).

Clearly, although the market price is a concept and as such implies a certain degree of abstraction,² we are not confronted here with a theoretical variable. The idea that the market price is a theoretical variable to be determined through the comparison between supply and demand according to some general, well-specified rule only makes its appearance at the end of the ‘golden’ period of Classical political economy, with John Stuart Mill and De Quincey, and is afterwards fully developed by Marshall with his conceptualization of different ‘periods’: long, short, very short...³ Hence, the way the gravitation problem has frequently been discussed in recent years — namely through models in which the market price is a theoretical variable determined by the comparison between supply and demand — substantially modifies Smith’s way of thinking.

Let me stress this point. The causes which, according to Classical economists, determine the deviations of the market from the natural price can be classified under two headings: (i) those affecting demand for a certain commodity, and (ii) those affecting its supply. But it is a big step from here to the construction of functional relations for the quantities demanded and supplied, such as marginalist demand and supply curves. In marginalist theories, demand and supply curves express the (non-contingent, non-casual) working of basic elements, such as technology (returns to scale) and human psychology (utility maps). For Classical economists, on the contrary, ‘demand’ and ‘supply’ are simply convenient classificatory and expository devices, summarizing in a single word a number of different elements, a full list of which is probably not even considered possible. (We may note here that, in writers antecedent to Classical political economy, the reference to ‘demand and supply’ as factors determining prices is the typical expression of a situation previous to the establishment of ‘regular’ markets, so that, as at village fairs, exchange ratios were subject to a number of unsystematic influences).

4. By the way, I should perhaps stress the following point: the fact that Smith identified market prices with actual prices, and did not consider them as a theoretical variable, obviously by itself does not mean that a modern theoretician cannot treat market prices as theoretical variables. Here I am only maintaining that this notion is alien to Smith — and to the whole body of Classical political economy up to John Stuart Mill.⁴

² Cf. A. RONCAGLIA, *Petty*, Armonk, N. Y., Sharpe 1985, chap. 8.

³ Cf. K. Bharadwaj, *Themes in Value and Distribution — Classical Theory Reappraised*, Unwin Hyman, London 1989, chap. 6.

⁴ Modelling market prices as theoretical variables is mainly useful for establishing negative results (such as the by now influential idea that convergence of market to natural prices cannot be established under sufficiently general conditions, or Steedman’s result recalled below); it can

Misinterpretations of Smith in this respect may possibly arise from a misreading ('is determined by' instead of 'is regulated by') of the often-quoted passage where Smith discusses the stabilizing role of competition for the reproduction through exchange of a market economy based on the division of labour. Smith says:

"The market price of every particular commodity is regulated by the proportion between the quantity which is actually brought to market, and the demand of those who are willing to pay the natural price of the commodity..." (WN, I.vii.8).

Here we are confronted neither with a definition of market price nor with a theory explaining its determination. In what follows the passage quoted above, Smith neither provides laws specifying how demand and supply react to a market price different from the natural price, nor laws specifying how the market price reacts to fluctuations in, and differences between, demand and supply. In particular, there is no hint here of a market-clearing process determining the market price. (In this respect we may add that market clearing processes characterize the working of stock exchanges, but not of village fairs or modern industrial markets: 'market clearing' should not be confused with broadly specified 'market adjusting' processes).

The only general rules which Smith suggests are (i) that the market price will be higher than the natural price when supply falls short of 'effectual demand', and will be lower when the opposite occurs; and (ii) that the deviation of the market from the natural price will provoke reactions on the side of both buyers and sellers, which make it impossible for this deviation to persist unchanged under free competition. As is clear from the few examples which Smith provides on this point, the specification

also be useful for analyzing the implications of specific market mechanisms. But the idea, occasionally suggested in the 'gravitation debate', that modelling market prices is a basic step for the modern reconstruction of Classical price theory, should be rejected. This idea implies the possibility of building a 'canonical model' for market prices, which requires isolating fundamental elements affecting in a systematic way the determination of market prices, analogously with what happens in the theory of prices of production. Besides, as S. PARRINELLO ("Some Reflections on Classical Equilibrium, Expectations and Random Disturbances", mimeo, Rome, June 1990, p. 3) stresses, "should this stage be achieved, we would resort directly to the 'perfect' disequilibrium model and the method of approximation based on attractors should be dismissed as a non-necessary approximation".

Considering Sraffa's analysis of production prices as a positive contribution to our understanding of a capitalist economy does not require a general formal proof of the gravitation of market prices (interpreted as theoretical variables) towards prices of production. Statements such as 'who cares about production prices, if it cannot be formally demonstrated that market prices gravitate to or around them', impose on economic theory an impossible burden, the equivalent of which would certainly be rejected in other sciences, from meteorology to plasma physics. Production prices express in a pure form the working of the factors — technology, income distribution — which the whole of the Classical tradition considers to exert the most important direct and systematic influence on relative prices. We cannot *prove* through theoretical analysis that the choice of the factors isolated in our 'language game' is the correct one; once internal consistency is ensured, an indirect evaluation of our choice can only be provided through a process of competition between rival 'paradigms'.

of these rules depends on circumstances which do not allow for the formulation of definite functional relations. And — following Egidi and Steedman⁵ — one should add that these rules should in fact be reformulated as referring to the sectoral profit rate compared to the average profit rate. Moreover — as Steedman showed, and differently from what Smith assumed to be case — the sign of the deviation of the market from the natural price will not necessarily be the same as the sign of the deviation of the sectoral from the average profit rate.

5. Thus it seems that we may interpret Smith's notion of gravitation not as a theory explaining the determination and behaviour of market prices, but only, or mainly, as a metaphor expressing the stabilizing role of competition. This is also revealed by the interjections, "as it were" and "if one may say so", which Smith uses in the two passages where gravitation is referred to:

(i) "The natural price, therefore, is, as it were, the central price, to which the prices of all commodities are continually gravitating." (WN, I.vii.15)

(ii) "But though the market price of every particular commodity is in this manner continually gravitating, if one may say so, towards the natural price, yet sometimes particular accidents, sometimes natural causes, and sometimes particular regulations of police, may, in many commodities, keep up the market price, for a long time together, a good deal above the natural price" (WN, I.vii.20).

It should be noted that the two passages are very near to each other, so that the not so strong qualification in the second passage — "if one may say so" — reinforces the qualification in the first passage. If some similar, possibly stronger, passage cannot be brought to our aid, we should conclude that the textual support for attributing a strong idea of gravitation to Smith is very weak indeed.

The second quotation also points to another characteristic of Smith's distinction between natural and market prices, namely that the natural price is not conceived as an average of the market prices realized over a certain time-span, since competitive conditions — which are implied in the definition of the natural price — are a limit state of the economy. The market price can remain higher than the natural price, says Smith in various passages, "for many years together", "for ever", "for centuries". In a sense one might say that Smith's idea of the natural price retains some flavour of the *jus naturalis* notion of the just price, being the minimum price, and hence the optimal one from the point of view of the consumer, compatible

⁵ Cf. M. EGIDI, "Stabilità ed instabilità negli schemi sraffiani", *Economia internazionale*, 1975 nn. 1-2, pp. 3-41; and I. STEEDMAN, "Natural Prices, Differential Profit Rates and the Classical Competitive Process", *The Manchester School*, 1984 no. 2, pp. 123-40.

with the 'natural' reproduction of the productive system. As Smith says: "The natural price, or the price of free competition,... is the lowest which can be taken, not upon every occasion, indeed, but for any considerable time together." (WN, I.vii.27)

6. One might also recall, in this context, that Smith explicitly discusses Newton's theory in the essay on the "History of astronomy".⁶ There, Smith interprets Newton's theory of gravitation not as the discovery of some natural law *intrinsic* to nature itself, of 'objective truths', but as the creation of the human mind, as "mere inventions of the imagination". Smith thus opposes a methodology which was rather widespread at the time, and which is well expressed by Galileo's idea that scientists aim at identifying the "mathematical laws" in which "the Universe was written" by God.⁷ Smith stresses this point by saying:

"Even we, while we have been endeavouring to represent all philosophical systems as mere inventions of the imagination, to connect together the otherwise disjointed and discordant phaenomena of nature, have insensibly been drawn in, to make use of language expressing the connecting principles of this one, as if they were the real chains which Nature makes use of to bind together her several operations."⁸

Wightman, the editor of Smith's *Essays on Philosophical Subjects*, comments: "Smith seems to be implying here that it is in fact a mistake, though a natural one, to think of Newton's system as the discovery of objective truths and to think of gravity as a 'real chain' that binds operations in nature. This belief is an 'illusion of the imagination', to use a Humean phrase that Smith borrows...".⁹

7. We may thus interpret Smith's 'natural prices' in the same way as Sraffa's 'prices of production': namely as theoretical variables stemming from those factors — income distribution, levels of outputs, techniques in use — which we have isolated *in vacuo*, so to say, for the purposes of our analysis, possibly because we consider them as playing the major direct systematic role in affecting exchange ratios in a market economy where division of labour and competition of capitals prevail.

For the details of this interpretation, let me refer to my book on Sraffa.¹⁰ But one point which should be recalled here is the separation between different economic problems which is thus proposed: in a straightforward

⁶ A. SMITH, "The History of Astronomy", in *Essays on Philosophical Subjects*, ed. by W. P. D. Wightman, Oxford, Oxford University Press, 1980 (henceforth, EPS).

⁷ This idea was shared by the founders of the Royal Society, including William Petty (cf. on this A. Roncaglia, *Petty* cit., chap. 2).

⁸ EPS, p. 105.

⁹ EPS, p. 19.

¹⁰ A. RONCAGLIA, *Sraffa and the Theory of Prices*, New York, Wiley 1978.

opposition to the marginalist tradition where the determination of equilibrium involves the simultaneous determination of prices and quantities, Sraffa follows Classical economists such as Smith and Ricardo in separating the determination of outputs (the theory of accumulation) or the explanation of the technology in use from the theory of value.¹¹ Only the factors which are *directly* relevant to the problem at hand are considered, and only those which are deemed to be fundamental and to be acting in a systematic way. Thus, as we know, Sraffa's analysis of the relationship between prices of production and income distribution relies on the assumption of *given* levels of output.

8. Sraffa's assumption of given levels of output has been the subject of some debate. In our context, one might ask whether Sraffa's given outputs correspond to the Smithian notion of 'effectual demand' (namely, "the demand of those who are willing to pay the natural price of the commodity, or the whole value of the rent, labour, and profit, which must be paid in order to bring it thither" — WN, I.vii.8). Here, the following points can be noted:

(i) Smith does not discuss the determination of 'effectual demand', while considering the determination of natural prices; there is thus a 'separation of issues' analogous to the one established by Sraffa with the assumption of given levels of output.

(ii) Smith's definition of effectual demand does not correspond to a notion of 'normal output' interpreted, as Garegnani suggested, as "the long run magnitude emerging from an average of booms and slumps".¹² Effectual demand, in Smith's definition, depends on the circumstances prevailing at the moment under consideration; thus, *e. g.*, Smith says that when there is a "public mourning", "there is an effectual demand for more labour"

¹¹ Part III of Sraffa's 1960 book ("Switch in Methods of Production") is an exception in this respect; but it is mainly directed to providing the foundations for the critique of marginalist theories, and should not be regarded as an interpretation of technical change over time.

¹² The passage quoted in the text appeared in the final draft of P. GAREGNANI, "Sraffa: Classical versus Marginalist Analysis" (in *Essays on Piero Sraffa*, ed. by K. Bharadwaj and B. Schefold, London, Unwin and Hyman, 1990, pp. 112-41), and was accordingly quoted in my comment (A. RONCAGLIA, "Comment on Garegnani", in *Essays on Piero Sraffa* cit., p. 147). Similar passages (though referring to "moving averages" and to "deviations from the trend") occur elsewhere in his writings: cf. *e. g.* P. GAREGNANI, "Actual and Normal Magnitudes: A Comment on Asimakopulos", *Political Economy — Studies in the Surplus Approach*, vol. 4 no. 2, 1988, pp. 251-58.

The point of contention, some aspects of which are discussed below, concerns two different interpretations of Sraffa's analysis (P. Sraffa, *Production of Commodities by means of Commodities*, Cambridge, Cambridge University Press, 1960): (i) as referring to "a 'normal' long-period position" constituting a (relatively stable, or 'persistent') "centre of gravitation of the actual values of output and employment" (P. GAREGNANI, "Actual and Normal Magnitudes..." cit., p. 252); (ii) as referring to something like a photograph of a system at a point in time, where the output levels considered in the analysis are not those actually prevailing at a given moment of time, but those corresponding to the normal degree of utilization of the existing productive capacity.

(of “journeymen tailors”), meaning that the demand for tailors at the natural wage rate — the effectual demand for tailors — is suddenly increased. In other words, Smith’s effectual demand is not necessarily determined with reference to ‘tranquil’ conditions, where any influence of accidental and contingent elements affecting consumers’ tastes is excluded by definition; the definition of effectual demand only implies reference to normal prices.

(iii) A notion of ‘normal effectual demand’ may be suggested — as in fact it was suggested at the Siena conference, in R. Ciccone’s paper. This notion is to be interpreted as expected effectual demand under tranquil conditions, possibly implying fulfilled rational expectations; but it is a rather artificial construct, certainly not to be found in WN. Even less textual or analytical justification can be found for the coordination of such a notion with the notion of natural prices, to arrive at the notion of ‘natural positions of the economy’.

(iv) As a consequence, it seems that Smith’s idea of gravitation of market prices to natural prices — which should in any way be interpreted as little more than a metaphor — cannot be extended by attributing to Smith the idea of ‘natural positions of the economy’, defined by the simultaneous prevalence of ‘natural prices’ and ‘normal outputs’,¹³ and towards which actual prices and outputs would be continuously gravitating.

(v) At the same time, we may interpret Smith’s ‘effectual demand’ and Sraffa’s given outputs as playing the same analytical role — *i.e.*, that of isolating the analysis of the relationship between relative prices and distributive variables from other issues, such as the theory of output; but as referring to different magnitudes, looked at from two different viewpoints. In fact, while effectual demand is defined from the side of the buyers, so to say, Sraffa’s given outputs may be interpreted as referring to the outcome of the production process which the entrepreneurs consider to correspond to a normal degree of capacity utilization.

9. Of course, when interpreted in this way, Sraffa’s given outputs, while being ‘normal’ in that they correspond to a normal degree of capacity utilization, are not necessarily ‘stable’ or ‘persistent’, or equal to the average of actual outputs over a certain time span. Conversely, the idea of ‘normal output’ is connected by Garegnani¹⁴ with the idea of ‘persistence’ of the forces that determine prices of production, in the context of his interpretation of production prices as ‘centres of gravity’ for actual (market) prices. In fact, the technology prevailing at each moment of time implies,

¹³ *E.g.*, as a point in the $2n$ -dimensional prices-quantities space, where n is the number of commodities.

¹⁴ See the references provided above, footnote 12; and P. GAREGNANI, “Surplus Approach to Value and Distribution”, *The New Palgrave Dictionary of Economics*, London, Macmillan 1987, vol. 4, pp. 560-73.

in the absence of an assumption of constant returns to scale, the reference to a given set of levels of output; the technology could be said to 'persist' only if the same could be said for the given levels of output.

We should however recall in this respect that Sraffa's reference to a prevailing technology does not imply that all productive units within a sector adopt the same technique: more efficient and less efficient plants generally coexist side by side,¹⁵ with technical progress taking place over time through the adoption of the best available technique for the newly installed capacity paralleled by the gradual scrapping of the oldest, less efficient plants. Thus, even under the assumption of *constant* levels of output, we cannot assume that the technology prevailing at any moment in time will 'persist' over time.

Moreover, the Smithian, and Classical idea that productive capacity and demand must adapt to one another, does not necessarily imply the idea that there is a given datum for our analysis, 'effectual demand', to which 'normal output' should adapt. Available productive capacity, and thus the output corresponding to a normal degree of capacity utilization and the prevailing technology, are constantly changing. Effectual demand, which depends *inter alia* on income levels or employment prevailing at a given moment in time, is also bound to change correspondingly. Neither 'effectual demand', nor 'normal output', can be defined as "the long run magnitude emerging from an average of booms and slumps" in a real — *i.e.* growing — capitalist economy.¹⁶

This point is important for the integration of Sraffian and Keynesian analyses.¹⁷ In fact, only by rejecting this interpretation of effectual demand can we open the door to the recognition of the influence which the actual degree of capacity utilization compared to the 'normal' degree exerts on the path of productive capacity and output. For instance, whenever the current and the normal degree of capacity utilization differ, *ex post* realized profits will be affected, and this will affect financing conditions, which in turn may affect investment expenditure, and hence the expansion of

¹⁵ As KALDOR, amongst others, stresses in his Okun Lectures (N. KALDOR, *Economics without Equilibrium*, Cardiff, University College Cardiff Press, 1985, pp. 40-45).

¹⁶ It should be stressed here that since the Classical approach centres on an economy based on the division of labour, we are necessarily confronted with a multi-sectoral analysis: natural prices are *relative* prices. Thus, while one may be tempted to represent the economy as a whole as following a sufficiently smooth path (though excepting the case of homothetic growth there are well-known difficulties in defining an 'average' output or an 'average' rate of technical change), as a matter of fact output levels and techniques in use in specific sectors change over time in a much more irregular way, with large differences in rates of change both among sectors and within a given sector at different intervals of time.

¹⁷ In fact, not only any theory of output and employment stressing the importance of short-run variables for investment decisions, but more generally any theory of path-dependent processes, such as the evolutionary theories of technical change, cannot be compatible with a notion of natural long-period positions which implies that certain variables — output levels, technology, income distribution — are assumed as fixed while a process of adaptation to the situation they define takes place.

productive capacity, as well as technology both through embodied technical progress and through cumulative 'learning' processes; on the other hand, the current level of investment expenditure will affect aggregate demand, and hence the current level of capacity utilization.

10. All this considered, we can interpret Smith's notion of 'effectual demand' as playing the same role as Sraffa's assumption of given levels of output, namely as *separating* the analysis of value from that of output and employment. The notion of 'effectual demand' (and the related but different notion of 'normal output') *cannot* legitimately be co-ordinated with the notion of 'normal prices', thus building a composite notion of a 'normal state of the economy'. Because of the basic differences in the methodological and conceptual framework of the two approaches, there is no need to look for a Classical counterpart of the marginalist notion of equilibrium, which implies the simultaneous determination of equilibrium prices and outputs.

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