Sraffa's Political Economy

ALEX M THOMAS

BOOK REVIEWS

A Reflection on Sraffa's Revolution in Economic Theory edited by Ajit Sinha, *Switzerland: Palgrave Macmillan, 2021; pp xxv+601, €139.99 (hardcover).*

Piero Sraffa (1898–1983) made revolutionary contributions to economics. While his critical contributions to the Cambridge Capital Controversy are relatively well known, his constructive efforts in the "Production of Commodities by Means of Commodities" (PCMC hereafter), which revived classical political economy, are not quite. The book under review, aptly titled *A Reflection on Sraffa's Revolution in Economic Theory*, is edited by Ajit Sinha, who has widely published on Sraffa. This book is published under the Palgrave Studies in the History of Economic Thought series and the contributors bring together "insights from his [Sraffa's] archives" (p ix).

All the contributors to the edited volume have extensively engaged with Sraffa's ideas in their previously published work. There are 18 chapters in total, out of which 1, 4, and 9 by Sinha, Goddanti Omkarnath, and Geoffrey Harcourt deal with Sraffa's value theory; Chapters 2, 3, 5, 8, 11, and 13 by Roberto Scazzieri, Maria Cristina Marcuzzo and Annalisa Rosselli, John Davis, Anna Carabelli, Guglielmo Chiodi, and K Vela Velupillai engage with Sraffa's philosophical and economic standpoint; Chapters 6, 7, and 18 by Yoann Verger, Ajit Sinha, and Nerio Naldi explore the aspects of Sraffa's intellectual biography; Chapters 14, 15, and 16 by Carlo Panico, Ragupathy Venkatachalam and Stefano Zambelli, and Ghislain Deleplace examine the monetary elements in Sraffa's economics; the remaining Chapters 10, 12, 17 by Martins, Steenge, and Verger connect "Garegnani's surplus equation and Marx's falling rate of profit," Sraffa and Leontief, and Sraffa and ecological thought, respectively. Innovatively, each chapter is followed by a comment and the author's response to that comment; I had first come across this expository structure in Krishna Bharadwaj and Bertram Schefold's 1990 edited book of conference proceedings titled "Essays on Piero Sraffa: Critical Perspectives on the Revival of Classical Theory."

My review shall focus entirely on the first two sets of chapters, that is, those dealing with Sraffa's price theory and his approach to economic theory. I shall not engage with the "comment" on the chapter or the "reply" to that comment. Apart from reasons of coherence, this approach is also guided by the need to make the substantive economic ideas in Sraffa accessible to the varied readers of this journal before engaging with the interpretative issues within the Sraffian literature. Specifically, my review engages only with the following: Chapter 1 (Sinha), Chapter 2 (Scazzieri), Chapter 4 (Omkarnath), Chapter 5 (Davis), Chapter 8 (Carabelli), Chapter 11 (Chiodi), and Chapter 14 (Panico).

Conceptualisation of the Economy

Any attempt at an explanation of phenomena in the physical and social world must necessarily undertake abstraction. After all, the aim is to find the general from the particular, the persistent from the transient. In their theory of value (or price), marginalist economics takes as their givens or data the following: (i) preferences of the ahistorical and asocial individuals, (ii) technology, and (iii) endowments. In equilibrium, prices and quantities of both commodities and factors (that is, wages and profits) are simultaneously determined. This is why Bharadwaj, in her review of Sraffa's PCMC in the *Economic Weekly*, distinguished his theory by calling it "value through exogenous distribution" as opposed to the marginalists' theory of value through an endogenous distribution.

Another noteworthy feature in PCMC is the structural interdependence between the various industries; this is especially because of industries that produce "basics," which go directly or indirectly into the production of "all" commodities (Sraffa 1960: 8). This feature is visible, for instance, in Cantillon's "necessaries" and Adam Smith's "productive labour"; therefore, Sinha's claim that Sraffa's "idea of a system of basic goods makes a decisive break from all previous economic theories" (p 1), classical economics included, cannot be upheld.

Unlike the marginalists, Sraffa takes the quantity system as a given; as Sraffa (1960: v) writes in the preface,

> No changes in output and no changes in the proportions in which different means of production are used by an industry are considered.

Consequently, the givens in Sraffa's system are: (i) the size and composition of output, (ii) technology, and (iii) one distributive variable (either the wage share or the rate of profit). Wages, like in the classical political economists, could be at customary subsistence, exogenously determined by historical and cultural factors. Or, the rate of profits could be exogenously determined by conventions as to the normal rate of interest, on the part of both central banks and money market participants; the rate of profit, as Sraffa writes, "can well be 'given' before the prices are fixed. It is accordingly susceptible of being determined from outside the system of production, in particular by the level of money rates of interest" (Sraffa 1960: 33). Panico rightly terms this "a historical and conventional theory of the interest rate" (p 443). It is through "exogenous distribution" that the political economy of the classical economists and Sraffa is fundamentally historical. This openness to history is also noted by Davis (p 138) and Panico (p 433). Through this route, "ethical and moral values," which, Chiodi rightly thinks, should be addressed in "a 'social' discipline" like economics (p 331), enter.

Chapter 1, written by Sinha, aims to provide a critique of Garegnani's interpretation of Sraffa. Garegnani views PCMC as falling, within the tradition of classical political economy (so does Chiodi but without endorsing the free competition idea [p 350]). And therefore, Garegnani treats Sraffa's assumption of a uniform rate of profit as a consequence of free competition or the free mobility of labour and capital (for a concise account of Garegnani's contributions, see Omkarnath et al 2011). Sinha disagrees with this view and argues that "a uniform rate of profits is a structural property of the system of basic goods, and the determination of prices is independent of human subjectivity or demand considerations" (p 2). Such a position warrants qualification because the determination of prices depends on the knowledge of the size and composition of output, and in a decentralised economy, the volume of output is most certainly determined by "demand considerations." Also, it must be kept in mind that mathematical solutions offer insights only when the economic rationale can be provided for the assumptions and givens (which Garegnani's interpretation provides). The danger with Sinha's interpretation is that it appears to reduce Sraffa's theory to a mathematical curiosum.

In the actual world, prices and quantities change in complex ways. And economists must decide "how" and "which" economic variables to abstract and analyse. For the marginalists, prices and quantities are simultaneously determined. For Garegnani and Sraffa, the determination of prices and quantities are analytically separable, as in the classical economists. A similar interpretation is advanced by Davis too:

> Production was still to be explained in an objectivist way with a natural science account of commodity values based on costs, but social forces operated in a different causal way in connection with distribution. (p 145)

Chiodi also emphasises the importance of the assumption of "given quantities" in the classical economists (p 335). Thus, it is consistent to have a demand-led determination of output and growth alongside Sraffa's theory of value and distribution (for a succinct account of this, see Thomas 2021: 94–98).

Relatedly, while in classical economics, as Sraffa observed in 1925, "cost is independent of quantity" (p 7), in marginalist economics, cost is dependent on quantity—the rising marginal cost (and consequently an upward-sloping supply curve) being the most popular embodiment of this presumption. No assumption of a "functional" relationship between inputs and outputs, such as constant returns to scale (CRS), is found in classical economics. But Sinha insists that the classical economists "assumed that the proportions between inputs and outputs remain constant when such supply adjustments take place. This implies an assumption of constant returns to scale" (p 12). I find this to be a marginalist imposition on classical economics. (For a detailed discussion of demand and value theory in Sraffa, see Thomas 2018.) Although it could be conceded that, at best, the CRS assumption renders a rational reconstruction of classical economics easier, it is alien to a historical reconstruction.

Sinha is convinced that Sraffa rejected any attempt, which "searches for the ultimate cause of a phenomenon or the mechanical causation in which the theory searches for an equilibrium of forces as the solution of the problem" (p viii). Sinha is right in pointing out that for Sraffa, the solution to finding a theory of prices did not involve the symmetric forces of supply and demand (as in marginalism). Given that Sraffa's price theory has "three" givens, we can safely state that identifying "the ultimate cause" is impossible. It is in this context that Sraffa's "profit is a non-price phenomenon" may be understood because both profits and prices emerge from the given quantity system and the distributive rule; the former comprises the size and composition of outputs as well as the methods of production. To put it in Marxian terms, profits are not generated in the exchange sphere but in the production sphere. Already, in *Monetary Inflation in Italy*, his honours thesis submitted in 1920, Sraffa, according to Panico, had "considered monetary phenomena, like inflation and deflation, as part of the social conflicts shaping income distribution" (p 422).

Sraffa classifies economic systems into viable and non-viable ones. And in PCMC, he only considers the former (Sraffa 1960: 5). Viable systems may be self-replacing or not; self-replacing viable economic systems may produce a surplus or not. In a self-replacing economic system, "[t]here is a unique set of exchange-values (or prices) which, if adopted by the market, restores the original distribution of the products and makes it possible for the process to be repeated" (Sraffa 1960: 3). Scazzieri highlights Sraffa "structuralism" by drawing attention to the self-replacing system. In his chapter, the discussion on the choice of the level of aggregation when studying economic systems is noteworthy (pp 51, 55–56, 75–76). Whether we study economic phenomena at the level of the firm or the industry, matters for analysis and therefore for comprehension. The question of aggregation is also connected, as Davis puts it, to the "ideological conception of the relationship between economics and the economy" (p 139). In this context, Carabelli's discussion on "the assumptions of homogeneity and independence" is helpful (pp 239–52); for example, is it reasonable to assume that all firms within an industry are homogeneous and independent? Not surprisingly, as Sraffa notes,

> the economic systems of reality are not self-replacing. They are in a constant state of transition and obsolescence, due to changes, both in the types of (kind of) commodities produced and in methods of their production (as quoted by Scazzieri from Sraffa's unpublished papers).

Price Theory

For the classical political economists, value/price theory is a prerequisite for a coherent theory of income distribution, which, in turn, is necessary for a theory of economic growth and development. Hence, Smith's interest in determining "natural prices" and Karl Marx in "prices of production" and not "market prices." Perhaps, another way to think of price theory is to view it as a necessary accounting device for understanding economic change. The dominant interpretation of PCMC is that it revives the classical theory of value by providing it with a sound logical footing, especially through the "imaginary standard system" (an analytically satisfactory solution to David Ricardo's search for an invariable standard of value); this analytical device shows that distribution can be disentangled from prices, up to a point. Since the distributional rules are given prior to commodity exchange, Sraffa's value theory captures an important subtlety: the "separability" as well as "simultaneity" of the determination of prices and distribution. In contrast, in this volume, Sinha argues that there is no causal theory of value and Omkarnath goes even further and argues that there is no theory of value in Sraffa's PCMC.

Sinha argues that the uniform rate of profit assumption in Sraffa does not imply free competition as in the classical economists. Because the "natural price" idea in classical economics encompasses a notion of equilibrium, which is driven by the profit-maximising behaviour of the capitalists. As Sinha writes,

> we do not need the market mechanics and rational human behaviour and the assumption of equilibrium to solve for prices in this case either—the required information to solve for the system of equations of basic goods could be found out by rearranging the data. In other words, the condition of a uniform industrial rate of profits is a structural property of the equation system. (p 20)

Correa (2022: 22) endorses this. But surely, there needs to be an economic rationale for this? Moreover, Sraffa explicitly assumes "an annual cycle of production with an annual market" (Sraffa 1960: 10). For Omkarnath too, free competition "is inconsistent with the Sraffa system because … movements of capital would entail changes in output and/or methods of production which are givens in his system" (p 125). But then, can Sraffa's givens not be those that emerge "after" profits across sectors are uniform? To put it differently, can they not reflect the outputs of a fully adjusted system?

For Sraffa, costs and prices are interdependent (so he rejects the cost-of-production value theories) and value is "not" determined by marginal utility or human subjectivity (much like Smith, Ricardo, and Marx). Sraffa blames William Stanley Jevons, Carl Menger, and Léon Walras for "shifting the basis of value from physical to psychical processes" (as cited on p 341 by Chiodi from Sraffa's unpublished papers). Moreover, as he writes in PCMC, "capital (is not) a measurable quantity independent of distribution and prices" (Sraffa 1960: 38). Furthermore, "distribution and prices" or distribution and value are intertwined. Sraffa makes this interconnection explicit in PCMC when he writes that "with a wage-reduction, price-changes would be called for to redress the balance in each of the 'deficit' and in each of the 'surplus' industries'" (Sraffa 1960: 14). A similar point is visible in a note Sraffa wrote in 1956 (D3/12/54; quoted on p 23 by Sinha). Therefore, Sinha's claim that "prices play the role of accounting for the distribution of income, which is determined independently of prices" (p 22) needs some qualification. Perhaps, if "accounting" was replaced by "realising," it would make sense. (Similarly, Omkarnath writes that "prices become merely an accounting device for measuring aggregates" [p 124].) Sinha's interpretation of Sraffa's prices pushes out the economics and reduces them to mathematical artefacts. Consider this: "given the structural property of the equation system that equal rate of profits must hold at any moment, a surplus or a deficit implies that industrial 'equations' no longer hold and the equations can be re-established only through changes in 'prices'" (p 24). Mathematical logic is meaningful only if it is backed up by economic logic. Sinha's interpretation renders Sraffa's prices into "market prices," which are determined by a system of equations with uniform rate of profits as a mathematical necessity.

Scazzieri calls the prices in PCMC "reproduction prices" (p 70). Chiodi offers a similar interpretation: "The essential function of production prices rests on their making possible the 'reproduction of the system'" (p 344). That is, Sraffa's prices may be seen as "reproduction prices," whereas marginalist prices are "scarcity prices." Omkarnath's interpretation comes close to that of Scazzieri and Chiodi: "a 'theory' of prices stands dissolved in Sraffa while his 'prices' come to represent minimal conditions of a viable economic system" (p 118). And Omkarnath takes his interpretation too far when he writes that Sraffa's "system as a whole represents the theory of economic 'structure,' which forms the basis for a theory of accumulation and 'change'" (p 118). Scazzieri also advances a similar interpretation when he writes that PCMC "may be interpreted as a search of foundational principles for a theory of economic structure" (p 65). For PCMC to possess a theory of economic structure, Sraffa ought to have provided reasons for determining prices and "not" quantities, and not just distinguish between "production for subsistence" and "production with a surplus" (Sraffa 1960: ix). Moreover, why cannot prices be viewed as indices of viability? Causal questions like "what if" and "why" can easily be posed to such a price system. Therefore, in the presence of Sraffa's "selective" givens and explananda, causal questions and answers with clear directionality strongly point towards a "theory" of prices in PCMC. Moreover, the question of viability cannot be completely resolved so long as the quantity system is assumed to be self-replacing and is a given (and remember that there exists a surplus in the economic system). In a way, Cantillon's "intrinsic values," Smith's "natural prices," and Marx's "prices of production" also represent "minimal conditions for a viable economic system," and in that sense, Omkarnath's interpretation is helpful in situating Sraffa's work in the classical political economy tradition.

The Role of Theory

Sinha thinks that Sraffa's theoretical world is capable of being directly applied to the actual world. Irrespective of one's position on the ontological status of the uniform rate of profit, it is difficult to reconcile this assumption with the differential profit rates that we see around us. The input–output structure of the actual world ("pace" Leontief) for a given time period, say 2020–21, does not presuppose any kind of returns to scale and thus I do not think the following criticism of Garegnani by Sinha holds: "Strangely, Garegnani never refers to inputs while talking about given outputs. But to write Sraffa's equations he needs precise input data to go along with his given 'effectual demands' or 'normal' output data. Where does he get that from, without the knowledge of returns to scale" (p 12). Besides, the knowledge of outputs and technology entails the knowledge of inputs.

Sinha introduces new concepts such as "industrial rates of profit" and "the weighted average rate of profits of the system as a whole" (p 18). The latter is an alien concept to PCMC. In PCMC, R is the "Maximum rate of profits"—the case only "if the whole of the national income went to profits" (Sraffa 1960: 17). The former concept is found in PCMC; as Sraffa writes, "the surplus (or profit) must be distributed in proportion to the means of production (or capital) advanced in each industry" (Sraffa 1960: 6). Moreover, while Sinha's first concept is a theoretical one, the second is a statistical one. Sraffa was much invested in theoretical or conceptual measurements; as Carabelli writes,

> Measurement is to be understood at the theoretical level—that is, from the point of the philosophy of measure—and not that of the actual measuring of magnitudes. Sraffa … was not interested in the difficulties involved in actually measuring quantities (the so-called statistical problems) but in the theoretical problems of measurement (p 232; the discussion on pp 233–34 is particularly insightful; on measurement-related issues of a similar nature, see Thomas 2021: 18, 35–37, 164–65, 170; also see the brief discussion in Correa 2022: 23).

For Sraffa (1960: 6), "the prices cannot be determined before knowing the rate of profits" and "the distribution of the surplus must be determined through the same mechanism and at the same time as are the prices of commodities." That is, the determination of prices/value and distribution are interlocked. Subsequently, Sraffa (1960: 12) employs counterfactual reasoning "to observe the effect of changes in the wage on the rate of profits and on the prices of individual commodities, on the assumption that the methods of production remain unchanged." (Some notion of time certainly enters here.) Then, using the standard commodity, Sraffa (1960: 22) concludes that the wage and the rate of profits are inversely related. Thus, Sraffa convincingly demonstrates the fundamental distributive conflict present in a capitalist society. This "relation" or "property," according to Sraffa (1960: 22), "is capable of being extended to the actual system of observation." Sraffa explains further: "Particular proportions, such as the Standard ones, may give transparency to a system and render visible what was hidden, but they cannot alter its mathematical properties" (Sraffa 1960: 23; see also the discussion by Sinha on p 21). This viewpoint is reminiscent of Marx's distinction between "appearance" and "essence." Chiodi, while writing about Marx, rightly highlights the importance of "new" categories and terms in unravelling the essence of capitalism which are "otherwise hidden or hardly noticed" (p 338). Or, as Scazzieri puts it, "A particular heuristic device (the standard system) allows discovery of a structural property" (p 73).

I find the economic rationale—free competition—for the uniform rate of profit provided by Garegnani compelling. In PCMC, Sraffa also assumes uniform wages and uniform prices (see also Thomas 2018: 19–20). While the former is not a consequence of competition, the latter is. On uniform wages, Sinha writes the following:

> Sraffa's procedure of homogenisation of labour is dependent on the available objective data alone—it is simply a processing of proportions of total wage bills paid in various industries as proportions of total undifferentiated labour utilised in those industries. (p 22)

To be able to undertake this procedure, wage differentials in the economy must be known. As a matter of fact, we can find out the rate of profits by "objective data" too. Sinha contends that Sraffa carried out a similar homogenisation for capital and it is this analytical procedure which "requires us to measure capital in such a way that profits received by capital, turns out to be equal for every unit of capital in the system" (p 22). What about the "uniform" commodity prices (which presuppose a competitive process)? In any case, Sinha then needs to tell us why Sraffa took all these painstaking efforts to isolate certain variables as the explananda and not others.

Omkarnath seems to confuse theory and empirics when he writes that during "Smith's time … the natural state of the economy was a rather simple and self-evident historical truth. Natural prices themselves were transparent and more or less amenable to direct observation" (p 122). As noted earlier, the purpose of theorising is to find the general in the particulars, and once that is done, it acts as a beacon of light. But natural or theoretical prices by definition are not derived from "direct observation" (as Correa 2022: 24 notes in the context of techniques of production, "[a]bstraction is called for"). Sraffa's interest in theoretical measurement has already been noted; let me complement that with a quote from Sraffa's unpublished manuscripts by Carabelli: Sraffa underscores the "necessity of unit of measurement, not for measurement, but for conception … we must find a unit of measure for cost: the necessity for this unit arises, not from a desire of actually measuring it is prior to it, and is required even for thinking of cost" (p 234).

Sraffa's rationale behind the choice of the money rate of interest as a given, quoted by Panico from the unpublished papers, truly captures the essence of political economy:

> I have no intention to put forward another mechanical theory which, in one form or another, states again that income distribution is determined by natural, or technical or even accidental, circumstances, which in any case are such that they make any action taken by either part, in order to modify it, futile. (pp 443–44)

Such a political economy standpoint is also visible is Sraffa's decision to treat one distributive variable as exogenous (similar to the classical political economists who treated subsistence wages as exogenous).

Conclusions

The volume under review clearly brings out the superiority of Sraffa's political economy vis-à-vis the marginalist microeconomics. That the choice of explananda matters for both understanding and policy clearly comes through. That is, it may be argued that good theory enables socially helpful actions. Hence, I do agree with Chiodi's assessment that PCMC has "brought about a 'new way of thinking' in the economic discipline" (p 350). But I do not share his disapproval of the Sraffian literature which uses the method of long-period equilibrium and critically engages with marginalist economics on logical grounds (p 350).

The stance of mainstream economics research and teaching displays what Davis terms "scientific amnesia—a phenomenon whereby the leading edge of a science is so focused on particular problems at hand that the past commitments and achievements of the field are neglected and forgotten" (p 136). In such an intellectual milieu, books such as Sinha's serve an important function—highlighting valuable non-mainstream ways of studying contemporary economies.

Notwithstanding my strong disagreements about several interpretative points in the volume, I hope that it motivates economics students, teachers, and researchers to read more about Sraffa's work, especially its role in the revival of classical political economy—an analytical superior paradigm to that of marginalist economics.

Alex M Thomas (*alex.thomas@apu.edu.in*) teaches economics at Azim Premji University, Bengaluru.

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