

## **Sraffa after Marx: an open issue**

Riccardo Bellofiore

### *Abstract*

The Sraffa archives at the Wren Library, Trinity College, Cambridge, UK, have been open for consultation for more than a decade. Only recently, however, have a few works started to consider what is in these unpublished papers concerning Sraffa's relationship to Marx, in contrast with the attention given to Ricardo or Marshall, Keynes or Hayek.

This paper traces a conjectural history which stresses the discontinuity on Sraffa's path towards *Production of commodities by means of commodities*. After the end of 1927, and until the early 1930s, he insisted on a 'degeneration of the notion of cost and value' when 'food' was substituted by 'labor'. In this early period, the Italian economist appears mostly critical against the labor theory of value.

Things changed in the early 1940s after Sraffa had re-read *Capital*. Here he understands Marx's 'method of comparison', and hence the crucial role of the lengthening of the social working day and of the theory of value in the origin of surplus value. For some years, Sraffa thought that his inquiry, which had a typically Ricardian object of analysis, would have vindicated Marx and the role of labor-value in economic thinking.

In this same period, Sraffa rejected Bortkiewicz attacks against Marx. Later on, Sraffa had to partially change his mind on the continuity between his results and Marx's. Nevertheless, even after publishing his book in 1960, he maintained a positive judgment on Marx's transformation procedure, and used his conclusions to propose a redefinition of the notion of exploitation based on labor commanded rather than labor contained.

Only the papers of the early 1940s allow for a deeper understanding of Sraffa's normalizations in § 10 and § 12 of his book, which may be interpreted as national income exhibiting nothing but the objectification of living labor. Those normalizations and Sraffa's redefinition of the rate of exploitation 'at prices' also allow us to build a bridge with the New Interpretation of Marx suggested by Duménil and Lévy.

## Sraffa after Marx: an open issue

Riccardo Bellofiore<sup>\*§</sup>

This is characteristic of the vice of economists. Thinking that all can be reduced to the extreme simplicity of the money measure: also, that production is a purely technical question + that economic problems arise only in distribution.

Sraffa, *Lectures on Industry*, 1941-43

### 1. Introduction

The Sraffa Archives at the Wren Library, Trinity College, Cambridge have been open for consultation for more than a decade. During these years there have been many conferences, and several volumes have been published which take into account the new material. In a 1998 conference<sup>1</sup> I remarked that there has been almost no discussion concerning the new perspectives that the unpublished papers of the Italian economist could suggest about his relation with Marx, this in contrast to the attention that has been given to Keynes or Hayek, Marshall or Ricardo. This is quite amazing since precisely this continuity or discontinuity between Sraffa and Marx had been one of the hottest topics in the 1970s and early 1980s. Having been a regular reader of the Sraffa papers throughout these years, I increasingly felt uneasy about this situation and found this silence too noisy.

There may be some reasons for this disregard. The positions of most, though not all, of the authors working in the so-called 'surplus approach' is that *Production of commodities by means of commodities* showed how redundant, if not plainly wrong, was Marx's value theory. On the other side, most Marxists nowadays live in a deep ignorance about Sraffa: he is very often reduced not just to Steedman, but even to Morishima or Samuelson, as all part of the same paradigm. A second reason relates to the Sraffa papers themselves. Different than with Marshall or Ricardo, Hayek or Keynes, in the unpublished papers the dialogue with Marx is found almost everywhere but is dispersed. More than that, the reference to Marx seldom became visible on the surface of Sraffa's published output. A third reason has to do with the attitude of the majority of the researchers going through the Archive. They very often seem on a quest for confirmation of their own prior views rather than looking for the novelties the unpublished papers may bring.

In my view, the Wren Library provides unexpected vistas of Sraffa's landscape which partly changed my way of interpreting Sraffa's theoretical contribution. In a joint 1998 paper with Jean Pierre Potier, we gave a first survey of 'what's new' in the Archive<sup>2</sup>. At the end of what was mostly a biographical essay, I took the liberty to give a first glimpse to an interesting intellectual episode found in the Archive: the early reactions to Sraffa's *Production of commodities* by economists interested to Marx, in 1960-61. The most important

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\* Dipartimento di Scienze Economiche 'Hyman P. Minsky', University of Bergamo, Italy, and Research Associate, History and Methodology of Economics Group, Faculty of Economics and Econometrics, University of Amsterdam, Netherlands.

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<sup>1</sup> The Proceedings of the Conference were published three years later. Cfr. Bellofiore 2001, especially section 4.

<sup>2</sup> Cfr. Bellofiore-Potier 1998, section 10, 11, 12.

names here are those of John Eaton and Claudio Napoleoni, both authors of substantial early reviews published in Italian journals of Sraffa's 1960 book<sup>3</sup>. The Archive contains answers to their arguments written by Sraffa himself. In the 1998 interpretation of the monetary aspects in Sraffa's writings, published in 2001, I also showed exploiting some of the archival material how the relationship between the rate of interest and the distribution of the surplus in *Production of commodities* was actually thought by Sraffa himself in Marxian terms.

I was then very happy when Guglielmo Chiodi asked me for a paper on Sraffa and Marx at his 2003 conference, my contribution to which is published here. Certainly this is a difficult topic. Difficult, because of the huge quantity of papers to be digested again and again; thus what I write here must be seen as a first, and certainly not final, endeavor. And difficult also because in my view to venture some meaningful hypotheses one must have to navigated the entire catalogue of papers and dived into them more than once. A partial look, in fact, may be highly distorting. However, when I started writing my contribution to the conference, the situation was changing in a positive direction. Some carefully crafted inquiries on Sraffa and Marx started to circulate at last, and now they are in print<sup>4</sup>. They actually go over some of the terrain, on many points in much more detail, that I'll cover here, so the story they tell may be often, though not always, seen as complementary to mine.

A result of my reading will be that the 'received opinion' on Sraffa among the Sraffians is very often as limited as it is the standard Marxist reading of Sraffa. On the other hand, my aim here is not to advance a complete alternative, but to show that there is still work to be done, questions to be answered, and that it is too early to draw definitive conclusions.

## **2. From Marshall to Ricardo?**

I take here a 1998 paper by Heinz Kurz as representative of a widespread and influential 'Sraffian' position on Sraffa.<sup>5</sup> Sraffa's metaphysics is 'socialist', Kurz admits. However, Marx is not really important from an *analytical* point of view. After some initial hesitation, Sraffa actually builds a criticism of Marx, being more sympathetic towards Petty and the Physiocrats. 'Cost' is a set of material goods, i.e. 'physical' real cost. The translation of this in terms of labor as human effort is judged a step back. In Sraffa's opinion, it opens the way to a subjectivist perspective.

The initial hesitation, before the end of 1927, turns upon the idea that Marshall and Marx could somehow be integrated. In a sense, for Kurz, we find *Marshall rather than Marx* at the beginning. But Sraffa soon realizes that relative prices should be explained referring to the *true absolute costs* of commodities – i.e. those costs that cannot be abolished to produce commodities - as the real starting point. In this period, some hard critical statements by Sraffa against Marx are registered in the Archive. The work of a wage worker is akin to that of a slave, or a horse, or a machine, so that there is no reason to privilege it. More than that: "it is a purely mystical conception that attributes to labour a special gift of determining value" (D3/12/9: 89, late '20s)<sup>6</sup>. According to Kurz, this view is maintained by Sraffa in the years to come. That is why in Sraffa's book labor-values do not play any meaningful role.

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<sup>3</sup> See also later in this chapter, section 7.

<sup>4</sup> The most important for what follows are De Vivo (2003) and Gilibert (2003).

<sup>5</sup> The paper was published in Italian in *Il pensiero economico italiano* in the same special issue where my work with Potier referred in footnote 2 is included. There exist several English versions. Amongst these, cfr. Kurz 2002.

<sup>6</sup> Anybody with minimal first-hand knowledge of Marx will agree that a statement like this would be approved by Marx, since 'value' itself is a 'mystical' entity. Sraffa, who was a careful reader of sect.4 of chapter 1 in *Capital*, Volume 1, as his copies in the 'Sraffa collection' (SC) well testify, probably knew it. I quote the papers following the classification of the Sraffa Papers at the Wren Library.

In *Production of commodities* prices and distribution are explained starting from two sets of data that can be *observed*: the productive system, including the productive consumption, and the rule of distribution. ‘Values’, strictly speaking, can and must be ignored. Given the ‘physical’ methods of production, relative prices are set at the ratios needed to re-establish the initial distribution of resources. If we assume ‘free’ competition and a given real wage, capitalist prices embodying an equal rate of profits are fixed *simultaneously*, and not in a ‘successivist’ way as in Marx. Alternatively, taking the wage as a share of the ‘net product’, prices reflect not only the technology, but also some social determinant such as the social conflict on the wage or monetary policy. In this interpretation, Marx was relevant for Sraffa only insofar as he too, like Petty or Quesnay or Ricardo, was within this objectivist tradition. But the Marx needed by Sraffa was *already in Ricardo*. Thus, Sraffa’s path is actually *from Marshall to Ricardo*.

Of course, Kurz recognizes that with  $r = 0$ , or with equal proportions of present and past labor, the exchange ratios are nothing but the ‘values’. But he stresses that none of these two instances carry some theoretical weight for Sraffa. Moreover, the Standard System and the Standard Commodity are no substitute for the Labor Theory of Value. In fact, the latter can be accepted only when also Marginalist value theory is faultless. In sum, Kurz’s standpoint in reading Sraffa is to start from *Production of commodities*, to interpret the book along lines not very far away from Steedman’s, and then to re-read Sraffa’s making of his book in a way fitting harmoniously with this ‘happy ending’<sup>7</sup>.

In what follows, I show that Sraffa’s theoretical journey was not only different, but also much more varied. Working on his book, Sraffa’s judgment on Marx changed a lot and in significant ways, affecting his own conclusions. Looking at these changes provides unique and unusual spectacles through which to look at *Production of commodities*, which may even influence the positive development of Sraffa’s legacy.

### 3. The ‘20s. The ‘metaphysics’ of value

Before 1928, Sraffa consider Marx in some notes titled ‘Avventure della teoria del valore’ (D1/3: 3-4), *Adventures of value theory*. For the Italian author, economic theory arises from *practical*, policy problems. Behind are at work *class* interests. After some time, the theoretical construction detaches itself from this origin, presenting itself as if it was from the beginning only a purely *logical, impartial, and intellectual* construction. Ricardo was against landlords, whose interests were seen as damaging to the other classes. Between 1870 and 1875 the Neoclassical revolution by Menger, Jevons and Walras had a very clear political motivation:

In 1867 Marx published *Kapital*: he took Ricardo’s cost-theory of value, transformed (a very inconspicuous fact, owing to Ricardo’s treatment of value) in a labour-theory of value, and based upon it his theory of surplus value & a distinctive criticism of value.

After 50 years of hegemony, “Ricardo was suddenly found unsound, and thrown overboard so that he might draw Marx with him. (Ashley)”. Sidgwick and Marshall, after a few years, presented a symmetrical theory of value, without any anti-Marxian reaction. Why? Because of a *confusion*: it was thought that Marx’s approach was grounded on the ‘cost of production’ in

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<sup>7</sup> In fact, Heinz Kurz, in more recent works (with Christian Gehrke and with Neri Salvadori : cfr. Gehrke-Kurz 2006 and Kurz-Salvadori 2005), has recognized how Marx’s influence on Sraffa went much deeper, affecting not only ideology but also economic analysis. In a sense, however, the Marx considered in these other essays is once again an extension of Ricardo. As most authors within the surplus approach, in my view, Kurz does not stress enough the possible role of Marxian (labour-)value theory for the interpretation and reconstruction of Sraffa. A consideration of these developments in Kurz’s position is not possible here, and must be postponed to other papers. Stefano Perri has developed, in rigorous analytical terms, a reading of Sraffa and Marx which is similar and complementary to mine, cfr. Perri (2007).

labor as the cause of value. But the ground of Marx is the equality established between cost (labor) and value, and this equality may hold even if labor is *not* the only determinant of value.

We are not entering into a discussion of Marx: I only want to point out this, that if Marx theory can stand upon the basis of Ricardo's T.V. *it can equally well stand on the basis of Marshall*.<sup>8</sup>

Reasonably, this may give the impression that, at this stage, for Sraffa the opposition between the Classics and a Neoclassical like Marshall lies simply in their respective *metaphysics*, and that both can be reconciled on the *technical* issue of price determination. The key point, however, is that the two perspectives, rather than alternative or complementary, are simply aiming at *different problems* (cfr. D3/12/3: 16).

Classicals start from a *social point of view*, and their main theme is, first of all, the *macro* determination (and thereby the *cause* and *nature*) of the value of *all* commodities, and then its consequent *distribution*. Here, of course, what is crucial is a notion of 'intrinsic' value referring to the *totality* of the commodities produced by *human beings*. The Moderns, as Sraffa also calls the Neoclassicals, concentrate on the *micro* determination of *individual prices*, and *identify* the distribution among factors with the price determination (cfr. D3/12/3: 4-5). According to the Italian economist, the two approaches should be named differently: the first 'value theory', the second 'price theory'. Each one is deemed *adequate* relative to its *own* chosen object of analysis. What one should avoid is applying the analytical system good for one problem to that of the other. General assumptions and methods must be carefully distinguished and taken separate (cf. D3/12/3: 21). Thus, against Kurz's position, it appears that when Sraffa 'begins' from Marshall, it is just because he thought that the latter was (at least partly) *compatible* with Marx. It is also clear that Sraffa sympathizes more with the macro approach.<sup>9</sup>

Sraffa's perspective on Marx starts to change from the end of 1927 when the theoretical path towards *Production of commodities* begins. The methodological view, and the historiographical position, appears at first sight to remain the same. He still objects to the mixing of the issue of distribution of income (which has to do with the macro-social perspective relative to the whole production of commodities) to the micro determination of individual prices. And he still thinks that the Marginalist revolution is a class reaction to the Socialist and Marxian reading of Ricardo's legacy. Classical Political Economy had

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<sup>8</sup> A very similar argument can be found in the *Notes* of the summer of 1927, originally written as introduction to his *Lectures on advanced value theory* he had to teach in following years:

The labour theory of value was devised by Ricardo as a stick to beat landlords (rent does not enter into cost of production). But later, having been advocated by Marx to beat the capitalists, it was necessary for the defenders of the present system to devise a new theory, the utility theory of value. As to Ricardo, it should not be thought that he was consciously biased in his theory, that he was the champion of the rising capitalist against the landlord. ... As to Marx, the fact that the utility theory of value had been found several times before (by Dupuit, Gossen) and had fallen flat while when it was again almost simultaneously published by Jevons, Menger and Walras in the years immediately following the publication of vol. I of Capital, found suddenly a large body of opinion prepared to accept it and support it is significant enough (Ashley, Present Pos. of P.E., Ec. J., 1910). (Note that the later development of Marshall, which was thought to be quite as effective in pulling down the basis of Marx's theory of value, is not at all incompatible with it). (D3/12/3: 10-11)

In the quotes the italics are mine, whereas the underlining is Sraffa's.

<sup>9</sup> In these same years we find some critical notes towards Laski and Croce, as authors according to whom Marx's value theory is an 'ethical' view based on an equality between value and labor in a 'primitive' or in a 'natural' society. 'Cause' of value and 'equality' based on some natural situation has nothing in common, for Sraffa. According to these readings,

the substance of Marx's teaching was that labour being the only 'cause' of value it was 'just' or 'natural' that the whole product should go to it. Now, this belief can only be held by anyone who has no knowledge of Marx's mentality: there is no writer more scornful than he is of 'droits naturels', no one less likely to appeal to 'legal' or 'juridical' motives. (D1/22: 2)

unexpectedly opened the way to socialist views.<sup>10</sup> It is however in these months that we see the beginning of Sraffa's reconstructive theoretical effort based on physical real costs. In a note on the 'degenerazione del concetto di costo e valore' (*degeneration of the notion of cost and value*) he writes:

It was only Petty + the Physiocrats who had the *right* notion of cost as 'loaf of bread'. Then somebody started measuring it in labour, as every day's labour requires the same amount of food. Then they proceeded to regard cost as actually an amount of labour. Then A. Smith interpreted labour as the 'the toil and trouble' which is the 'real cost' (Ricardo, p. 10, 15n) and the 'hardship'. Then this was by Ricardo brought back to labour, but not far back enough, and Marx went only as back as Ricardo. Then Senior invented Abstinence. And Cairnes unified all the costs (work, abstinence + risk) as sacrifice. Now Davenport, Cassel, Henderson, have carried it a step further, the last step in the *wrong* direction. (D3/12/4: 4).

The 'degeneration' leads from the right view with cost seen as 'food', and subsistence looked at as a real, 'physical' entity, to the less clear-cut perspective substituting 'labor' to cost. Sraffa looks at Smith's 'toil and trouble' as a notion implying the risk of easily slipping into the *vulgar* view that what matters is some *psychological* and *non-objective* cost. Labor as 'sacrifice' is the first step in the journey to subjective 'disutility', which calls for some *incentive* to overcome this impediment to production. However, Sraffa insists that the notion of labor in Ricardo and Marx "was still near enough to be in many cases equivalent" (cf. D3/12/4: 5). Many years later he will return to a similar argument. There is no common unit to evaluate non-homogeneous physical use values going into 'cost'. However, we can *reduce* them to labor: this notion is here mostly a *qualitative* one. But labor can be in its turn 'reduced' to the commodities consumed by the workers, and these commodities to the amount needed to sustain a worker in a single day. An amount which may be taken to be *roughly* constant, according to Sraffa, so much so that it is quite *legitimate* to take an hour of ordinary labor as the *quantitative* standard.

In the *Lectures* of 1928-1931, therefore, the *divide* between the two value theories is found in the *different notion of cost*: Petty-Physiocrats, on one side, Marshall, on the other. For the former line, "it is a stock of material that is required for the production of a commodity; this material being of course mainly food for the workers". For the latter line, the cost of production is "the sum of 'efforts and sacrifices' involved in the abstinence of waitings and in the labour of all kinds that is directly or indirectly required for the production of a commodity". (D2/4: 18) In one case, cost is something *concrete* and *tangible* that can be *observed* and *measured* empirically, necessary for production on the same foot as primary commodities of means of production. In the other case, cost is something *private* (i.e., *subjective*) which can be measured *only through the money* that must be disbursed to

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<sup>10</sup> In the *Lectures* of 1928-31 Sraffa wrote:

Ricardo's theory of value, whatever may have been in the back of his mind, or in his footnotes and in his private letters to Malthus and McCulloch, was understood by everybody in his time to mean that quantity of labour was the only cause of value, and this is what in practice mattered. In a conflict between landlords and manufacturers, particularly when this word is meant to include both employers and workers, the theory works in the interest of the manufacturers. But in a conflict between labour and capital it obviously becomes a strong argument in favour of labour. A Socialist school arose in the twenties and thirties of last century which seized this opportunity of using against the capitalist the teaching of what was at the time the most orthodox political economy. [...] [T]heir argument was very simple - since, as Ricardo has proved, all value is produced by labour, all the product must go to labour and nothing must remain for the capitalist and landlord who have produced nothing. This caused a good deal of confusion amongst the orthodox Ricardian economists, who saw their doctrines used in such an unexpected way; and who, as a matter of fact, were already realising the difficulty of explaining by the labour theory of value the fact that for commodities which take different periods of time to be produced or require different proportions of fixed and circulating capital, the value is not proportional to the labour required for their production. [...] The difficulty was finally met by the introduction into economics of the notion of abstinence, the sacrifice contributed by the capitalist to production, as the counterpart of labour, the sacrifice of the worker. [...] The early seventies mark a turning point in the history of economics. On the one hand Marx published the *Capital*, in which his critique of capitalism is entirely based upon Ricardo's theory of value, although of course he interpreted it in an entirely different way from the early Utopian socialists. On the other hand, the entirely new theory of value, based exclusively on marginal utility, was found (or invented) almost simultaneously and independently by Jevons in England, Menger in Austria, and Walras in France. (SP D2/4: 11-2 and 14-5).

overcome the *disutility*. That is: *quantity of things* used up in production vs. *individual motives and satisfactions*. From here it follows the presence, or absence, of the ‘surplus’, or the ‘net product’, in competing theoretical approaches.

In truth, in this second phase, Sraffa upholds a ‘physicalist’ approach, where value is linked to nothing more than the *material* cost. What here about labor properly speaking? I will return to this in the next section. At present, it is enough to say that Sraffa does not seem to stress any big break with Marx. It is true, as Kurz says, that Marx’s views were linked to his metaphysics, but this latter looks quite *reasonable* for Sraffa. Unfortunately, it was *not understood anymore* after so many decades. The difficulty to be overcome is thereby one of ‘translation’. In a note entitled *Metaphysics* he even dares to claim:

I foresee that *the ultimate result will be a restatement of Marx*, by substituting to his Hegelian metaphysics and terminology our own modern metaphysics and terminology: by metaphysics here I mean, I suppose, the emotions that are associated with our terminology and frames (*schemi mentali*) - that is, what is absolutely necessary to make the theory living (*lebendig*), capable of assimilation and at all intelligible. If this is true, it is an exceptional example of how far a difference in metaphysics can make to us absolutely unintelligible *an otherwise perfectly sound theory*. This would be *simply a translation* of Marx into English, from the forms of Hegelian metaphysics to the forms of Hume’s metaphysics [...] If this is true it also shows (or it is an exceptional case? in physics it does not seem to be indifferent) how little our metaphysics affect the truth of our conclusions, and *how the same truths can be expressed into widely divergent forms*. Our metaphysics is in fact embodied in our technique; the danger lies in this, that when we have succeeded in thoroughly mastering a technique, we are very liable to be mastered by her. (D3/12/4: 15).

Marx’s theory is judged as adequate: a *truth* to be *translated*. Though different ‘techniques’ embody a different ‘metaphysics’, this does not impair the soundness of Marx’s basic theory. Again:

The typical case of Marx’s metaphysics is his statement that ‘only human labour produces (causes) values’, ‘values are embodied human energy (crystallised)’ [...] The metaphysics of the modern economists is that ‘a commodity...is the embodiment of measurable efforts and sacrifices’ (Marshall, Memorials, 126); on the same plane as Marx’s ‘crystallised labour’ (D3/12/4: 16).

It has to be remarked that for Sraffa any enquiry about ‘value’ *cannot* be divorced from a view about its ‘nature’. What impresses him is this: that in only 50 years after Ricardo a complete fog surrounded the truth, as well as the metaphysics, of Ricardo and the Classics, so that they were completely misunderstood. All this notwithstanding, Marx understood them perfectly well, and it was a kind of miracle:

Still more terrific. In the middle of the 19th century, a man succeeds, either by accident or by superhuman effort, in getting again hold of the classical theory: he improves it, and draws its practical consequences from it.” (D3/12/4: 17)

Likely, this was the task he set to himself.

#### **4. From the ‘20s to the ‘40s: ‘fatal error’ versus the ‘Hypo’**

I now consider what the Archive at the Wren Library suggests about an important change in Sraffa’s position on Marx that occurred in the early 1940s. This change sheds light on a *transition* from the negative assessment of the labor theory of value in the late ‘20s to its *implicit* role, and meaning, in the *background* of the 1960 book.

Kurz stresses very much the notes of the late 1920s, where Sraffa seems to disapprove the idea that relative prices has anything to do with *human* labor. This is an example from the *Lectures*, about Ricardo:

labour is the ultimate constituent of cost *not* because it represents the *human* element in production, but only because it has necessarily used up a given amount of capital as its wages, and must be replaced out of the price fetched by the product. Profits being proportional to capital, and capital being reduced entirely to wages of direct or indirect labour, they affect according to Ricardo in the same proportion all the different commodities and therefore do not affect relative exchange values. [...] When in his later years the difficulties arising for the labour theory from the fact that the values of commodities requiring equal amounts of labour but different amounts of capital have as a matter of fact different values, he intended to take capital into account; but in this again he did not regard it as entering in the form of a *human element, as abstinence*, but only as time lost by capital goods in one employment, while they might have been profitably employed elsewhere to support labour. (D2/4: 38)

In my view the point here is the same we already met: not so much a criticism of Marx (or Ricardo), but rather the risk of importing, through ‘labor’, some *subjective* sacrifice of the individual.

From this alone, of course, one cannot infer a criticism against the (very different) role that living labor plays in Marx. In spite of this, sometime during 1928-32 we actually encounter an explicit attack against Marx:

There appears to be no objective difference between the labour of a wage earner and that of a slave; of a slave and of a horse, of a horse and of a machine, of a machine and of an element of nature [...]. *It is a purely a mystical conception that attributes to human labour a special gift of determining value.* Does the capitalist entrepreneur, who is the real ‘subject’ of valuation and exchange, make a great difference whether he employs men or animals? Does the slave-owner? (D3/12/9: 89).

In 1927, he had already written down an even stronger criticism:

*The fatal error of Smith, Ricardo, Marx has been to regard ‘labour’ as a quantity, to be measured in hours or in kilowatts of human energy, and thus commensurated to value.* [...] All trouble seems to have been caused by small initial errors, which have cumulated in deductions (e. g. food of worker = quantity of labour, is nearly true). (D3/12/11: 36).

Still, it is revealing that this does not lead Sraffa to a *wholesale* rejection of the labor theory of value. The clearest example can be found in a note from these years where he adamantly distinguishes between *two* notions of ‘human’ labor: first, as *the* ‘cause’ of value, which creates *all* outputs and values; second, as

one of the factors of production (‘hours’ of labour’ or ‘q. of labour’ has a meaning only in the latter sense). It is by confusing the two senses that they [Ricardo and Marx] got mixed up to quantity of labour (in second sense) whereas they ought to have said that it is due to human labour (in first sense: a non measurable quantity, or rather not a q. at all). (D3/12/11: 64).

Sraffa is criticizing *only* the latter view, the one according to which the value of the individual commodity can be traced back to the quantity of labor *alone*, and not the former, the ‘macrosocial’ perspective. The problem with the macro perspective, this early Sraffa suggests, is that it cannot be observed, and then it cannot be measured. It is merely a *qualitative* perspective. No small breach relative to the Marxian position after all.

One thing has to be added though. In this period, Sraffa is *not* very worried by Marx’s transformation of values into prices of production. The 15<sup>th</sup> of July 1928 he wrote:

Marx, Cap. vol III, 1°, p. 159. *eguaglianza sdp => inconciliabilità della t. d. valore con il movimento reale e i fenomeni della produzione.*<sup>11</sup> This is not a ‘mistake’ of Marx (as Böhm

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<sup>11</sup> Italian in the original:

equality of the rate of profits => value theory cannot be reconciled with the real movement and the phenomena of



thinks: and Hilferding?). The irreconcilability of the theory with reality arises out of an internal contradiction of reality itself: it reflects, it corresponds to a real conflict within the <sup>structure</sup> <sub>framework</sub> of capitalism. (D3/12/7: 103) <sup>12</sup>

But there is something more, if we delve into the prehistory of *Production of commodities*. According to Gilibert (2003), and again in implicit but clear contrast with the received opinion, from the late 1920s Marx, not Marshall or Ricardo, is *truly* the starting point for Sraffa's long-life work on his book. The reference is not, however, as one might expect, to Volume I or III of *Capital*, but to the 'schemes of reproduction'. Sraffa reads for the first time Volume II, in a French translation, only in 1927<sup>13</sup>. In July 1928, the Italian economist writes that in his book he has to develop the argument in a way which echoes Marx, who "always considers simple reproduction first, where capitalist consume their whole surplus value", and thereafter "considers reproduction with the whole of surplus value". Thus, Sraffa himself has to build up his own line of reasoning in this sequence: "simple reproduction without surplus value"; "simple reproduction with surplus value entirely consumed", and the same without an equal rate of profits; "reproduction with total accumulation", and proportional accumulation; "reproduction with accelerated accumulation" because of inventions (D3/12/9: 11)<sup>14</sup>.

In winter 1927, Sraffa had already begun to write down systems of equations. His 'first equations' are exactly *simple reproduction with surplus value*, while 'second equations' see the *surplus totally accumulated at a proportional rate of growth*. The 'third equations' will however come only many years later, *in the early 1940s*. The key move will be Sraffa leaving behind the attempt to frame a 'growth' version of his equations. In the meantime, he had sketched an 'Hypothesis' that he believes close to Marx. The 'Hypo', as he calls it, will crucially drive his research for a few years, and will be reluctantly abandoned, leaving traces behind it. According to it, the 'surplus rate' (i.e., the physical ratio of the social product over the whole of the anticipated means of production) is put equal to the 'maximum rate of profits' (i.e., the value of profits when wages = 0 over the value of anticipated capital; a ratio which may also be read as the value of the net product, or gross income, over the value of the means of production, or the non-wage capital advanced)<sup>15</sup>. The 'Hypo' asserts that, *though income distribution may be influenced by prices, this ratio, on average, is constant*. Through it, as we will see, Marx seems to be literally not so much at the starting point but rather at the *concluding stage* of Sraffa's investigation, at least in his own understanding.

## 5. Bortkiewicz and the 'essential' nature of the question

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production.

<sup>12</sup> The remainder of the quote is interesting because it disconfirms another point in Kurz's interpretation.

On the one hand, if interest is paid in proportion to capital per unit of time, it becomes an obstacle to the development of production: the forces of production created by capitalism can no more be dominated within it. On the other hand, if by some Pigouvian scheme of taxation and bounties it succeeded in realizing what Marx thought impossible without capitalism coming to an end, and it must realize the Marxian theory of value, 'commodities would be sold at their values': but the appearance of capital being productive would fall to the ground, profits would be proportional to the wages, and would be shown to be a tax levied upon wages

With  $r = 0$ , 'values' actually represent for Sraffa a meaningful situation, at least from a normative point of view.

<sup>13</sup> Cfr. Gilibert 2001.

<sup>14</sup> The Italian original of this note can be found in Gilibert 2003: 29. For a thorough analysis of the role of the 'Hypo' for Sraffa, I refer the reader to the excellent essay by Gilibert that I have found extremely useful: although I am almost sure he would disagree on the implications of my story on the labor theory of value.

<sup>15</sup> Later on, the surplus rate will be represented by the symbol  $S$ , the maximum rate of profits  $R$ , the rate of profits  $r$ , and the wage  $w$ .

We will return on this crucial point later on. Let us first consider some of the detailed comments Sraffa wrote in 1943 when he read, in German, Bortkiewicz's article on the transformation (*Wertrechnung und Preisrechnung in Marxschen System*). The comments are found in a small black notebook (D1/91). What cannot but impress the contemporary reader is that Sraffa is consistently quite *aggressive* against Bortkiewicz, up to the point of labeling him as an 'idiot'.

Sraffa *rejects* Bortkiewicz's criticisms against the transformation of values into prices as well as against the law of the tendential fall of the rate of profits. Regarding the first issue, a recurring theme in Sraffa's considerations is the following. Bortkiewicz, following Tugan-Baranowski, assumes *different* organic compositions of capital in the three sectors of the schemes of reproduction (D1/91: 10-1). From here it follows that the *dual* accountancy, in 'values' and in 'prices', and then the 'doubling' of the rate of profits refutes Marx's transformation procedure. To affirm, like Marx, that the mass of profits is equal to the mass of surplus value, so that the two are in the same proportion relative to Social Income, the organic composition *must be the same* in the various sectors (D1/91: 19-20). Marx argues that values and prices are identical for the products with the same organic composition of the social average, but Bortkiewicz complains that the reference should have been to the commodity taken as the standard. Sraffa retorts that Marx was *implicitly* taking *the Social Product as the standard*: and, for *social* capital, the organic composition is truly the *most instructive* element.

Against Bortkiewicz, Sraffa brings up a *formal* objection, together with a more *fundamental* one. Let us start with the former. Bortkiewicz does not clearly distinguish constant and variable capital, and reduces their difference to the rotation period of capital. But the reduction to dated labor can be done only through an *infinite* series, not a finite one. This infinite reduction cannot ever be pursued to the end since in practice there *always* remains a commodity 'residue' which can never be set aside, as long as there is a positive rate of profits. Interestingly enough, however, Sraffa goes on adding that the *true, basic* objection to Bortkiewicz is *another* one:

the *real* objection (though somewhat vaguer) is this: that B's point of view, for the sake of obtaining absolute exactness in a comparatively trifling matter, sacrifice (by concealing it) the *essential* nature of the question – that is, that commodities are produced *by labour* out of commodities. (D1/91: **foglio ?**).

As a consequence, the necessary 'correction' due to the deviations of prices from values must always be seen exactly like that: as a *modification* relative to another, *different* starting point. If this is forgotten, as in Bortkiewicz, the solution "while it supplies exactness, *it obscures a fundamental fact*." With this comment by Sraffa, we are of course projected *forward*: we even see straight in front of us the same title of his 1960 book. But with an interesting qualification: production of commodities 'out of' commodities is done only *through* – and, then, *owing to* the expenditure of – *labor*. This is something which cannot be cancelled without obscuring a major fact, without disguising something *vital* and *necessary* to the theory<sup>16</sup>.

In his notes against Bortkiewicz, Sraffa insists that Marx's transformation is *approximately* correct, and that values *must* be taken as the starting point of the corrections.

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<sup>16</sup> Almost the title itself of *Production of Commodities* can be found also in a paragraph of a very long book included in the Sraffa Collection. Sraffa marked it on the margin. I am referring to T.A. Jackson, *Dialectics. The logic of marxism*, Lawrence & Wishart, chapter VI: «The Dialectic of Capitalist Production»:

Marx begins with the most central fact in capitalist economy in its most general aspect: *the Commodity*. A commodity is something produced. But not all things produced at all times are commodities. They are commodities only so far as they are *exchanged*; and in their developed form exchanged for money. They are capitalistically produced when the labour of production is that of wage-labourers, hired, (i.e: *bought*) in a relatively 'open' or 'free' market. Capitalist production is therefore a system of producing commodities *from* commodities (raw materials, machinery etc.) *by means* of commodities (the labour power of wage labourers). This universalisation of the commodity and all that it implies is *the* distinguishing fact of the capitalist economy.

The argument now is that there is no reason to think that organic compositions *systematically* differ. The point is raised again in 1945, in the context of a rebuttal leveled against Böhm-Bawerk. The hypothesis

that the *average* organic composition of the means of production + that the net product are *approximately equal*; + that therefore the price ratio of the two aggregates is *approximately* constant with respect to variations in the rate of profits is equivalent to saying that the price of the net social product, at all values of  $r$ , is equal to its value, *if both are measured in terms of the Standard Commodity*. This is the same as the well-known statement of Marx that ‘in society, considering all branches of production as a whole, the sum of the prices of production of the commodities produced is equal to their values’ (Kap. III, 1, p. 138). And he adds: ‘It is only in capitalist production as a whole that this general law maintains itself as the governing tendency, always only in a very intricate and approximate manner, as the constantly changing average of perpetual fluctuations’ (ib., p. 140). Böhm takes this for a tautology of which he makes fun at great length [...]. However, *it is not exactly but approximately that the two quantities coincide. And they do coincide because the national produce consists of a larger number of different commodities, which are chosen for their technical properties + these are quite independent of the organic compositions of the capital producing them* (D1/91: 40-1).

This takes us back to Sraffa’s ‘Hypo’ in the early 1940s. In fact, the latter is good only in a *one* commodity system, or when inputs and outputs have the same ‘composition’. After *Production of commodities*, of course, this looks like the most *un*-Sraffian proposition of all. Not only Marx’s, but Marginalist value theory would also be rescued unscathed. Sraffa quickly realizes that his Hypo cannot play the role he hoped for. And if organic compositions differ, the proportions of surplus value and of profits in Social Income are not the same anymore.

We can now go back to the 1943 notes. Sraffa admits that Bortkiewicz “appears justified in concluding that, given the wages in commodities, + the methods of production of wage-commodities, the rate of profits is ipso facto determined, no matter what happens in luxury-industries.” But – Sraffa asks – what is the meaning of what Marx is trying to do, and why he takes a road which turns out to be partially wrong? This is Sraffa’s answer:

What Marx does is, on the one hand (1) to take wages as given (inventory) in commodities, for subsistence, and on the other (2) to take the mass of profits as a given proportion of the product of labour. The two points of view are incongruous, and are bound to lead to contradictions. But B. wants to solve the contradiction by bringing (2) into agreement with (1). On the contrary, *the correct solution is to bring (1) into agreement with (2)*. For the point of view of (1) useful as it is as a starting point considers only the fodder-and-fuel aspect of wages, it is still tarred with commodity-fetishism. *It is necessary to bring out the Revenue aspect of wages; + this is done by regarding them as w, or a proportion of the Revenue*. This is (1) brought to agree with (2); and the conclusion that all capital must be taken into account for the rate of profits becomes true. (D1/91: foglio?)

Any *mechanicistic* view of distribution must thereby be abandoned, in favour of a view where distribution is linked to *social* aspects.

## 6. ‘Use of the notion of surplus value’

Arguing in the way he does against Bortkiewicz, Sraffa shows that he changed his mind relative to the late 1920s significantly. Of course, I am not arguing that this alone is enough for him to reinstate the labour theory of value. But I do not think, as other interpreters, that the new perspective leading to *Production of commodities* can be fully understood without considering his new way of looking at that theory. I think that for Sraffa it maintains a significant *theoretical*, *explanatory*, and even *quantitative* role; a role that needs to be brought to light.

Though only implicitly, Sraffa seems to side with the macro view that the social product can be referred back to *nothing else than* labor, and that the latter has to be seen as the *cause* of the former. We are very near to the core of the 1960 book, if we interpret it in a way which finds a connection to the new monetary approaches to Marxian value theory. Of course, a statement like this is rather bold as it goes against the stream – somehow, it goes also against my personal prejudices *before* reading the Sraffa unpublished papers. To be clear, it is very unlikely to find a ‘smoking gun’ to support this conjecture. But we may advance a speculative reconstruction, supported by many traces dispersed in the Archive.

As I have just shown, Sraffa in the 1940s abandons the ‘fetishistic’ view of the wage as given at the subsistence level and prefers to look at it as the proportion of the new ‘value added’ produced in the period. On the other hand, against what is nowadays the main line among the younger generation of Marxian scholars, he rightly sees this is not as a ‘New Interpretation’ and advances it as a sort of ‘reconstruction’ of Marx’s argument. We can sum up this suggestion along the following lines. Social income, *as a whole*, must be traced back to nothing but *direct labor*. Variable and constant capital are advanced *in money*, as Sraffa himself stresses in his notes against Bortkiewicz. The rate of surplus value is therefore to be understood as a *share* of social income, *whatever* the ruling system of exchange ratios. What matters in defining ‘exploitation’ is how much of (social) labour (producing national income in money) is ‘commanded’, or *bought*, by the *money* wage: not the labor necessary to *produce* the subsistence goods that workers buy, an amount which changes when workers modify the composition of their expenditure.

Is it legitimate to ask what ‘grounds’ the idea that only labor is the ‘macro’ determinant of Social Income, so that – to follow more closely Marx’s categories - the ‘net product’ *exhibits* in money nothing but the *objectification* of *living* labor? One of the most interesting hints comes from Sraffa’s notes starting from the 13<sup>th</sup> of November 1940, entitled: *Use of the notion of surplus value*, which begins with a quote from chapter 7 of *Capital*, Volume 1<sup>17</sup>. Marx’s argument is based on a *hypothetical comparison* between *two* situations: the one where *living labor is equal to necessary labor*, and the other which assumes the *prolongation of the social working day* relative to that situation with *prices unchanging*. Of course, since in the first situation there is *no* rate of profits, prices cannot but be proportional to *values*. Sraffa then turns on its head Marx’s reasoning, speaking of a *shortening* of the social working day that starts from the actual ‘real’ situation. When this happens, of course, the product is also reduced, so that the surplus in the end *disappears*. The choice, says Sraffa, is between starting from actual prices which equalize the rate of profits on advanced capital, or values which equalize surplus value for workers:

We must imagine to move gradually from the actual state, *shortening the working day*; as we start from the actual state, we use its own scale, i.e. prices ... as we pass to successive other states, with shorter + shorter working days, the scale to be used changes + the prices move nearer (as the rate of profits is reduced) to values – so does the ‘point’ aimed at change; until, on the threshold of the state in which *only the necessary labour* is performed, the *prices practically coincide with values*, + the point aimed at with that determined by the *scale of values*, i.e. all labourers will have had their hours reduced in the same proportion. (D3/12/46: 58-9)

After some lines:

Note that *if we have adopted straightway values*, + made the *comparison* between the *two extreme cases*, we should have obtained the same, *correct* result. But *if we have adopted prices*, + made the comparison, *it would have led us astray*: the ‘point’ indicated by prices [i.e., different reductions in

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<sup>17</sup> “The prolongation of the working day beyond the point at which the labour would have produced just an equivalent for the value of his labour power ...” The quote is taken from p. 518 of *Capital* volume I, edited by Dora Torr, in the Sraffa Collection.

different industries, would have been false when the hypothetical state was reached – for on the basis of values some labourers would be working more, + some less, than the necessary hours.

Once more, we see that Sraffa, at least in the period 1940-2, thinks that situations with prices proportional to values are *theoretically meaningful*<sup>18</sup>. He is amongst the few who clearly see in Marx the presence of what Rubin called the *method of comparison*. Nevertheless, in contrast with Rubin (or Croce, who preferred to speak of an ‘elliptical’ comparison), Sraffa understands that Marx’s comparison is based *not* on a reduction of *wages*, starting from a *given* ‘productive configuration’ with known levels of inputs and outputs and with the remuneration of labor exhausting the value of ‘net product’. It is rather constructed around a *counterfactual* thought experiment including a ‘lengthening’ of the social working day. On the other hand, since Sraffa’s object of analysis is a typically *Ricardian* one, in the end he had to revert to the usual practice – namely, to begin his discourse when the process of production has *ended*, and living labor is now *dead* in the commodity. At that point, of course, the distinction between labor-power and *living* labor risks to be forgotten. To talk of a *variability* of the social working day, on which *Marx’s* comparison is predicated, is out of the question.

This does not detract from the fact that Sraffa grasps what others definitely did not. In chapter 7 the core problem was that of the ‘constitution’ – i.e., of the *formation* – of economic magnitudes. Marx’s answer to the question about the *origin* of surplus value revolved around the *extraction* of living labor as a *variable* amount. Moreover, Sraffa seems also to understand that the two sides in the comparison are *not imaginary*. They *both* represent significant *capitalist* situations, including the case where living labor equals necessary labor. In other words, we do not have here any contrast between a capitalist *distortion* and some ‘natural’ economy (Croce), or ‘generalized’ commodity exchange (Rubin), so that profits are just a *deduction* from the ‘net product’. Surplus value exists *only* as long as labor *in motion* exceeds the labor required to reproduce the workers. As a matter of fact, Sraffa stops here. It is clear, though, that the *expenditure* of labor ‘making up’ the productive configuration is going on, *inside* the capitalist labor processes, *after* the buying and selling of labor power. Capital as a whole is able to get value and surplus value if and *only* if it is capable of *imposing* workers to *work* in the quantity and quality needed for its valorization to take place in *production* as such as a *contested terrain*. All this, *before* the production process comes to an end, and therefore *before* commodities are exchanged on the market. This is, in my view, the *ultimate* foundation of bringing ‘new value’ back to ‘living labor’. Looking at the economic system *post factum* cannot but make the *Marx’s* labor theory of value *redundant*.<sup>19</sup>

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<sup>18</sup> Of course, when the rate of profits is zero, the determination of the labor ‘contained’ in commodities is straightforward. In his notes of the 1940s Sraffa is not very much interested in a *Labor Theory of Value*, which *from* labor goes *to* value, because, he says, this is complicated in many situations (dated labour, joint production, fixed capital, etc.). What is more interesting, he says, is a *Value Theory of Labor*, ultimately based on this ‘method of comparison’, which goes *from* value *to* labor. Note that exchange and the market, at least ideally, play an important part in this counterfactual comparison. This theme will re-emerge when the final manuscript for the book starts to be written down. The 21st of February of 1955 he wrote:

In the dust raised by the controversies on the Labour Theory of Value, a <sup>interesting</sup> <sup>valuable</sup> aspect has been overlooked or what might be called the *Value Theory of Labour*. Wicksell would have benefited from it – it would have answered some of its puzzles. For, whatever disputes there may be about the determination of value by quantity of labour, there can be no doubt that (nobody doubts, as far as I know) that the *value* of a commodity (*its price for  $r = 0$* ) determines (i.e. *measures*) the *quantity of labour which directly or indirectly has entered into its production*.” (D3/12/44: 3)

<sup>19</sup> In the early ‘40s Sraffa also considers Cassel’s objection against Marx’s quest for a ‘third’ common element, embodied in the commodities exchanged, and measurable as a quantity, and interestingly enough he *rejects* it. The following comments are to be found in one of his copies of *Capital* (SC 3731):

When two commodities are equal in value ‘there exists in equal quantities something common to both’. The value is the mode of expression, the phenomenal form, of something contained in it, yet different from it. What is the form of this argument? It appeals to some generally accepted principle, which should be stated explicitly. Something like this: if two things are equal in one respect, they must be also equal in some other respect. The argument is supported by such critics as

## 7. Production of commodities by means of commodities and the rate of exploitation

It is no accident, then, that in *Production of commodities* these arguments are absent from sight. At the same time, it is also not by chance that Sraffa starts from the ‘simple’ rule where prices are proportional to *values*, with the wage, as a share of social income, equal to 1 and the equal rate of profits equal to 0. Sraffa subsequently decreases the wage, so that a positive rate of profits arises. This forces a change in prices because of the different proportions between labor and means of production in the various industries. When distribution changes, complex variations of prices set in. Yet, there is the extreme case when  $w = 0$  and  $r = R$ , the maximum rate of profits.

The ratio between the value of the surplus and the value of the means of production is identical to the Standard relationship as a ratio between different quantities of the same *composite* commodity: that is, as it was with the Hypo, a ratio *independent* of prices. This is the ‘critical proportion’, which has to be *recurrent*. If national income and the wage are measured in terms of the Standard Commodity, the inverse relationship linking the wage to the rate of profits becomes linear and *transparent*. The Standard System allows to accurately measure the ‘distortion’ of prices from values, due to the circumstance that the ‘net product’ and the means of production are made of an *aggregate* of commodities in proportions which diverge from the weights they should have in the Standard system. All this notwithstanding, the rate of profits departs from Marx’s ratio between the surplus value and the value of constant and variable capital. What then?

In the early 1940s, when Sraffa believed in the generality of his Hypo, he wrote a note, *Crosscap*<sup>20</sup>. It reconstructed, more or less, the sequence of the argument he had in mind to

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take ‘marginal utility’ as the ‘other thing’. It is opposed by the Cassel-type of critics, who say, if two objects are of equal length, why should they share any other property in common, beside[s] the same length.

NB: This way of putting things begs the question in favour of the Cassel point of view: it is absurd to put the two ‘respects’ or properties on the same plane. Marx regards one as the expression, the appearance, + the other as the substance. ‘Two things are exchanged in a certain ratio, what do they have in common in that ratio?’ Cassel answers: ‘why should there be a cause?’ Now if a measurement is made + two things are found to be equal, it is said that they have the same length, or weight, or force etc. This may be a mere restatement of the result of measurement in other words – which merely gives an illusion that there is a substance (length, force, etc.) which is behind the measurement. *But it may not*: if the length, force, etc. can be also *measured* (+ therefore *defined*) in an independent way, then the statement is a *real* one, not an illusion. Thus to say that two things exchange for one another ‘because they have the same exchange value’ is tautological if each value cannot be measured in any other way than by seeing how they exchange. *But if it can, then the statement is a law.*

From this point of view, Cassel’s criticism would be valid against Neoclassical theory, not against Marx’s.

<sup>20</sup> The note is in Italian. It is partially reported and translated in English by Gilibert (2003: 30). It is here quoted in its entirety (the parts missing in Gilibert are inserted below, in italics). In the parts where I follow Gilibert’s rendition, I have done some slight alterations:

Questa manovra è il centro dell’operazione, e tutto dipende dal suo successo. Va condotta come segue. Prima sviluppare le 1<sup>a</sup> equazioni, poi le seconde (con  $r$ ), poi introdurre in queste  $w$  come variabile. Qui è il punto delicato: dire il più possibile, senza dar via il segreto del rapporto costante fra  $C$  e  $V+S$ : se possibile, dire che la composizione organica (usar termini volgari) dei due gruppi è identica: e forse esaminare in dettaglio gli effetti dei cambiamenti di  $r$  e  $w$  sui prezzi di singole merci; ma in ogni caso, riservare il clou per più tardi. *A questo punto, rilevare la necessità di introdurre il cap. fisso: passare alla costruzione del gruppo di macchine (Toy I), mostrandone tutte le proprietà con ricchi dettagli (come il cap. varia con  $r$ , come l’ammortamento è fisso, contrasto con singola macchina, ecc.) Poi introdurre il Toy I nelle equazioni III, e notare mestamente come non si possano risolvere. Riprendere il metodo dei Toys, per il passaggio alla produzione continua (industriale): costruzione del Toy II (quadrato) e del sistema di equazioni (diff?) per la produzione continua. Fino a questo punto l’indagine deve essere stata condotta in termini rigorosamente volgari, evitando assolutamente ogni accenno a somiglianze con Old Moor [Marx] e soprattutto l’uso delle categorie fondamentali: dove possibile, bisogna avere indicato gli elementi che saranno usati poi, ma senza dirne lo scopo, esclusivamente come oggetti curiosi e di interesse locale. Qui viene il Crosscap. Esaminando il Toy III si nota un rapporto fisso (fra capitale, o parte del capitale) e prodotto che è indipendente da  $r$ . Evitando accuratamente di mettere in luce le altre conseguenze, accorgersi che ciò fornisce un metodo (trick) per risolvere tutte (? o almeno I-III) le equazioni precedenti. Concentrare l’attenzione su questo metodo di soluzione: possiamo dare a  $r$  un valore arbitrario (p. es. 10% o 5% o 1%), rendendo così le equazioni lineari, risolverlo, e ottenere il ‘rapporto fisso’, dal quale poi si deriva subito il vero  $r$ , e finalmente si possono risolvere le equazioni reali. Con questo metodo passare di nuovo tutte le equazioni, e risolverle ma finora (se possibile) non aver parlato della Q.d.L. Finalmente dire che il risultato è identico ad avere usato la Q.d.L.; tracciare la genealogia di ogni merce (rispondendo alla domanda: perché L? perché non cavalli o carbone? risposta formale, unica quantità costante) e poi mostrare che il più semplice metodo è di sostituire, nelle equazioni,  $\underline{r}$  con  $\underline{S}$ . A questo punto soltanto dire che è Old Moor.*

develop in the book. He was convinced his study would have shown that Marx was unequivocally correct. The point was, Sraffa insisted, that this should be kept *hidden* to the implied reader all the way through, to be revealed only at the end of the book.

It was an exceedingly confident programme. If the Hypo was right the analysis could have been done referring to labour-values, though with deviations. One had to start with  $r = 0$ , and thereby prices proportional to labor contained, i.e. 'values'. It follows the calculation of  $R$ , the maximum rate of profits, which can also be read as corresponding to Marx's 'value' rate of profits with no variable capital - i.e., as the ratio of total surplus value over constant capital. Assume, at this point, that the value of net product and the total quantity of labor employed are 'normalized', setting both equal to 1: in order that the former is the standard for prices, and the latter the standard for labour. A clear and transparent fundamental relation emerges,  $r = R(1 - w)$ , with  $r$  and  $w$  inversely connected through a linear equation. From here, the actual prices of production may be computed, taking into account the different levels of the wage.

After what Sraffa felt as the 'disaster of the model' this sequence does not hold anymore, because the Hypo is recognized to be *too restrictive*. As Gilibert reminds us, the procedure should rather be: first, computation of  $R$ , the maximum rate of profits; then, construction of the Standard System; at this point take this latter as the reference to measure wages and prices; eventually, determine the relative prices starting from the equal rate of profits going on at each wage rate. A *mediation* is now necessary to obtain this result, the Standard Commodity, as an *ad hoc* construction derived from the Standard System which is implicit in the 'real' system.

All this notwithstanding, Sraffa is still convinced of a strong parallel between his conclusions and Marx's. This is clearly behind another defense of the transformation procedure as we find it in *Capital*, volume III, a defense which is all the more significant because it comes *after* the book has been published, and since it embodies a reaction against some arguments denying the continuity between *Production of commodities* and Marx. I refer here, first of all, to Sraffa's answer to Napoleoni's review article - which will be actually published some months later, in 1961, in *Giornale degli economisti* but that Sraffa already

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(Nell'usare termini volgari cercare di farlo in modo, cioè per quanto possibile, senza contraddire le definizioni fondamentali (così, nelle 1° equazioni valore, nelle altre prezzi in termini di  $B$ , e profitti - mai plusvalore. In caso di assoluta contraddizione, il linguaggio volgare deve prevalere: alla fine, in un Errata, indicare le pagg. e linee dove si son fatti questi errori.))

Translation:

This manoeuvre is pivotal for the whole operation and everything depends on its success. We should proceed as follows. First, by developing the 1st equations, then the seconds (with  $r$ ), then by introducing  $w$  as variable. This is the sensitive point: we must tell everything, but we must not reveal the secret about the constant ratio between  $C$  and  $V + S$ . We can possibly say that the organic composition (expressed in vulgar terms) of the two groups is identical. Perhaps, we may examine in detail the effects of a change in  $r$  or  $w$  on the prices of individual commodities. In any case, it is better to leave the clou for a later time. *At this point, we observe the need to introduce fixed capital: going into the construction of the group of machines (Toy I), and showing all the properties with fullness of details (how cap. changes with  $r$ , how depreciation is fixed, contrast with the individual machine. Then, we introduce Toy I in equations III, and sadly take note they cannot be solved. Take up again the method of Toys to proceed to continuous (industrial) production: construction of Toy II (square) and of the system of (diff?) equations for continuous production. So far the inquiry must have been scrupulously developed in vulgar terms, definitely avoiding any reference to similarity to Old Moor [Marx] and particularly the use of fundamental notions. Wherever possible, without explaining the purpose, it is important to point out the elements which will be used later on, just as peculiar aspects of local interest. Here the Crosscap comes in. By examining the Toy III, we notice a fixed ratio (between capital or part of it) and product, a ratio which is independent of  $r$ . Being careful to avoid highlighting other consequence, to become aware of the fact that this gives a method (trick) to solve all (? or at least I-III) the preceding equations. Focusing the attention on this method of solution: we can give to  $r$  an arbitrary value (i.e., 10% or 5% or 0%) thus linearizing the equations, solve them, get the 'fixed ratio' from which we can derive the real  $r$ , and eventually solve the real equation. By this method, we can deal once more with all the equations, and solve them, but, up to now, without mentioning, if possible, the Q[uantities] of L[abour]. Finally, we declare that this result is identical to that obtainable by using the Q.o.L.; trace the genealogy of each commodity (by answering the question: why L[abour]? Why not horses or coal? The formal answer: it is the only constant quantity) and then show that the simplest method consists in substituting  $S$  [the rate of surplus] for  $r$  in the equation: Now, and only now, say this is Old Moor. (In employing vulgar terms, if possible, try to do that without contradicting the fundamental definitions (therefore, in 1° equations value, in the other prices as in  $B$ , and profits - never surplus value. Where there is some absolute contradiction, the vulgar language must prevail: in the end, in an Errata, refer to pages and lines where these errors have been made)).*

knew through the common friend Raffaele Mattioli. The title of the note, in Italian, is “Risposta a Napoleoni” (*Reply to Napoleoni*) and it is dated 31<sup>st</sup> December 1960:

There is no more contradiction between the 1<sup>st</sup> and the 3<sup>rd</sup> volumes of *Capital* than between the 1<sup>st</sup> and the 3<sup>rd</sup> edition of Ricardo’s *Principles*. In both cases, the authors *begin with a labour theory of value* applied to the exchange of individual commodities in a primitive society, under the assumption that all the produce goes to the workers (or, that there is no difference in the capital employed in the various sectors). These values are then *modified* to take into account the distribution of the surplus among capitalists, according to a uniform rate of profits. Exchange-values are adjusted according to the higher or lower amount of capital employed for unit of labour in the production of the different commodities: the prices of some of them rise while the prices of others fall. But if we consider, *not* the prices of *individual* commodities, but the values of *big aggregates* (such as National Product, National Income, Social Surplus, Total Wage: that is, the quantities which come into play dealing with distribution theory, the determination of the surplus, and the calculation of the general rate of profits), in these latter the fluctuations of those prices *approximately balance themselves*, and the aggregates can *again* be measured through labour values. This is what Ricardo does in his 3<sup>rd</sup> edition when he chooses as the ‘invariable standard of value’ a commodity which stays in the ‘right middle’ between the commodities whose price is composed almost alone by wages and those whose price is based primarily on profits. Marx gets to the same result through the transformation of values into prices of production, where he uses the general rate of profits derived as the *average* of the particular profit rates of the individual branches. What I called the ‘standard commodity’, and which was not so well received, is put forward as an instrument to resolve this problem *exactly*, and not approximately. It fills the intermediate position wanted by Ricardo and it fulfils the ‘invariability’ requirement he asks to solve the riddle. Moreover, if the equations of the real system depicted at the beginning are reduced so that they employ the same quantity of labour, the coefficients of the standard system are the ‘weights’ to be applied to the individual rate of profits so that the weighted average gives exactly the general rate of profits<sup>21</sup>.

The argument is, more or less, the usual one, except for the fact that profits here arises because of a reduction in wages, which is not very relevant since what is at issue now is not the origin but the distribution of the surplus. Marx’s transformation, with aggregates measured in labor-values, is found substantially correct. But now the ‘approximation’ in it can be remedied through the Standard Commodity.

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<sup>21</sup> The following is the Italian original:

In realtà, non c’è più contraddizione fra il 1° e il 3° volume del Capitale di Marx di quanto vi sia fra la 1ª e la 3ª ed. dei Principi di Ricardo. In entrambi i casi, si comincia con una teoria del valore-lavoro che si applica allo scambio delle singole merci nella società primitiva in cui si suppone che tutto il prodotto vada ai lavoratori (o almeno, che non vi sia differenza nel capitale impiegato nei vari rami). Questi valori vengono poi modificati quando vi sia da tenere conto di un sovrappiù che si suppone distribuito ai capitalisti in base a un saggio uniforme del profitto: i valori di scambio ne risultano modificati secondo la maggiore o minore quantità di capitale impiegata per unità di lavoro, nel produrre la varie merci e i prezzi di alcune di queste salgono e quelli di altre scendono. Quando però si considerino, anziché i prezzi delle singole merci, i valori di grandi aggregati di merci (quali il prodotto nazionale, il reddito nazionale, il sovrappiù sociale, il salario complessivo; e cioè le quantità che entrano in gioco quando si tratti di teoria della distribuzione, di determinazione del sovrappiù, e di calcolo del saggio general [sic] del profitto) in questi le fluttuazioni delle singole merci si compensano approssimativamente, e gli aggregati possono di nuovo essere misurati dal valore-lavoro. Questo è quel che Ricardo fa quando, nella sua 3ª edizione, sceglie come ‘misura invariabile dei valori’ una merce che formi il ‘giusto mezzo’ fra i due estremi formati dalle merci il cui prezzo si compone quasi esclusivamente di salario e da quelle basate prevalentemente sul profitto. Lo stesso risultato Marx lo raggiunge mediante la trasformazione dei valori in prezzi di produzione, usando il saggio generale del profitto che ottiene dalla media dei saggi particolari dei singoli rami di produzione. Quella che ho chiamato « merce-tipo » e che ha incontrato così poco favore, è proposta come un metodo per risolvere questo problema con esattezza anziché approssimativamente: essa occupa precisamente la posizione intermedia richiesta da Ricardo e soddisfa la condizione di ‘invariabilità’ che egli richiede per questo problema: inoltre, basta che le equazioni del sistema reale da cui si parte vengano ridotte in modo che esse impieghino uguale quantità di lavoro, i coefficienti del sistema tipo sono i ‘pesi’ che si devono dare ai singoli saggi del profitto perché la loro media ponderata dia esattamente il saggio generale del profitto. (D3/12/11/249-51)

This text was paraphrased line by line in Bellofiore-Potier (1998). It has been published for the first time in the Italian original by Ranchetti (2004). I have corrected some errors of transcription in this latter.



The *same* train of thought characterizes some notes on John Eaton, who too had just published a review article in a theoretical journal near the Italian Communist Party, *Società*, but with an interesting twist:

The proportions of M. are based on the assumption that the comp. of any large aggr. of commodities (wages, profits, const cap.) consists of a random selection, so that the ratio between their aggr. (rate of s.v., rate of p.) is *approx.* the same whether measured at 'values' or at the p. of prod. corresp. to any rate of s.v.

*This is obviously true*, and one would leave it at that, if it were not for the tiresome objector, who relies on *hypothetical deviations*: suppose, he says, that the *capitalists changed the comp. of their consumption* (of the same aggr. price) to commods of a higher org. comp., *the rate of s.v. would decrease if calc. at 'values', while it would remain unchanged at p. of prod which is correct?* - and many similar puzzles can be invented.

*(Better: the caps switched part of their consumption from comms of lower to higher org. comp., while the workers switched to the same extent theirs from higher to lower, the aggr. price of each remaining unchanged ...)*

It is clear that M's pros are not intended to deal with such deviations. They are based on the assumption (*justified in general*) that the aggregates are of some average composition. This is in general justified *in fact*, and since it is not intended to be applied to detailed minute differences *it is all right*.

This should be good enough till the tiresome objector arises. *If then one must define which is the average to which the comp. should conform for the result to be exact and not only approximate, it is the St. Comm.*

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But what does this average 'approximate' to? i.e. what would it have to be composed of (what weights shd the average have) to be exactly the St. Com.?

i.e. Marx assumes that wages and profits consist approximately of quantities of st. com. (D3/12/111, 140)

What can sustain Sraffa's argument of a line of continuity with Marx, which is clearly behind his defense of Marx's transformation and the role he declares for his Standard Commodity, clearly stated in all this quotes?

My interpretation is that this position cannot be rigorously maintained if one stays strictly within the boundaries of the analytical object described in *Production of Commodities*, because the link between prices and labor is too loose. What is needed is to go 'behind' the given methods of production, and to understand the process of their *constitution* - namely, to look at the 'photography' of the inputs and outputs 'after the harvest' as if it were just the last instantaneous picture of a 'movie', so that the 'productive configuration' has a *history*. To understand this, to trace down the 'constitution' *of the book itself*, in the many decades necessary to write it, is certainly not redundant. The long journey recorded in the Sraffa papers allows us to give a deeper meaning to the 'normalizations' written down in § 10 and § 12. As we know, in § 12, national money income is taken as the standard of prices. In § 10 direct labour of the society is also set equal to 1. Putting arbitrarily the 'monetary expression of labour time' also equal to 1, this is exactly the 'postulate' of the New Interpretation proposed by Duménil and Foley. The Italian economist actually met an *argument* to justify the idea that behind 'new value' in money there is *nothing but* 'living labor': the argument in chapter 7 of Marx's *Capital*. An argument Sraffa *may* well have had at the back of his mind when finishing his book.

Of course, if one gives this deeper meaning to the normalizations in §12 and §10 a consequence follows. With a 'degree of liberty' in distribution, and with national income 'exhibiting' the total direct labour in the period, the wage as part of the net product is, immediately, an expression of nothing but a quantity of labor. Not, however, as the labour 'contained' in a *given* real subsistence basket, rather as the labor 'commanded' by the money wage as a *variable* share. This consequence, as I anticipated, was fully appreciated by Sraffa himself, who quite consciously, in his dialogue with Eaton, goes as far **as** to re-read his scheme as a *novel* characterization of the 'rate of exploitation':

The tiresome objector says. Suppose that the (ratio of wages to profits) the rate of surplus value is 100% *at values*, but 150% if calculated *at current prices of production*. Which is the correct one?

Now M. would, I think, reject this question. He would say that his system is based on the assumption that the ratio of these aggregates is *approximately* constant, *whether* at values or prices. And that such deviations do not occur in fact.

*Although still correct in fact, this answer is not found adequate at the present day, after 100 years onslaught. It must be faced.*

And if such a situation occurred, *it is clear that the 'prices' rate would be the correct one*. In effect, the workers get 40% of the nat. income: on what comms. they spend it, depends on 'utility': *whether they choose to spend their 40% on high or low org. comp. commodities does not affect the degree of exploitation*. From which I should conclude that *the relevant rate of s.v. is to be taken at 'prices'* (D3/12/111: 138).

Although Marx's 'approximation' is justified, it cannot be accepted in pure theory. Matching here again the problematic of the 'New Interpretation', for Sraffa the rate of surplus value, at least if interpreted in the traditional way, becomes ill defined. If there is 'freedom' on how to spend the money wage bill, the labor embodied is *indeterminate*: it changes with the commodities bought. Not so, however, if the rate of surplus value is interpreted 'at prices' – namely, as the labor *commanded* by the (money) wage and supposed to be as a share of the net product 'fixed', somehow, by class struggle.

It is interesting as a further confirmation of this interpretative suggestion that, in the notes on Eaton, Sraffa offered a 'Marxist' reading of his own allusion in § 44 of *Production of commodities*, according to which the independent variable in distribution is taken to be not the wage but the rate of profits. The reason given is that the latter is ruled by the rate of interest fixed by monetary policy and by the banking system:

It seems to me that the only rational way to calculate is by starting with the interest rate  $\underline{r}$  (which is a matter of *observation*) and to deduce from it the rate of *exploitation* (that is, the standard wage  $\underline{w}$  and from that arrive at the surplus value rate

$$\frac{1 - w}{w} = \frac{1}{w} - 1)$$

The wage and the aggregate profit in this situation are, at best, rough approximations of the standard wage and profit. But the profit rate in this situation is identical with the standard one. (D3/12/111, 139)<sup>22</sup>

## 8. Instead of a conclusion

What has been proposed here is just a *conjectural history* trying to make sense of the notes relating to Marx, which we find dispersed in the Sraffa Archives at the Wren Library. It is meant to *raise questions*, rather than to 'fix' the research into a pre-defined path. What I suggest is that the attitude of Sraffa towards Marx, and his labor theory of value, was much more positive than is nowadays admitted both between friends and foes. More than that, even after *Production of commodities*, Sraffa tried to build bridges between his own scheme and Marx's argument in 'values'.

<sup>22</sup> The original is (mostly) in Italian:

A me sembra che l'unico modo razionale di calcolo sia di partire dal saggio di interesse  $\underline{r}$  (che è un fatto di osservazione) e da questo dedurre il saggio di sfruttamento (e cioè il salario standard  $\underline{w}$  e da questo il saggio di sopravvalore

$$\frac{1 - w}{w} = \frac{1}{w} - 1)$$

Il salario e il profitto aggregato della realtà sono, at best, rough approximations al salario e profitto standard. Ma il saggio del profitto della realtà è identico a quello standard.'

This does not mean, of course, that I fully agree with the theoretical picture I sketched, mostly implicit in the book and which can be reconstructed from the Sraffa papers. I accept that the core insight of the labor theory of value is encapsulated in the identity between the ‘net product’ coming out from the living labor of the wage workers, evaluated at values or at prices of production. At the same time, I think that Sraffa did not exploit enough his initial instinct, which saw a gulf between the *macrosocial* (theory of value) and the *microeconomic* (theory of prices) perspectives.

In a monetary production economy firms as a whole are in fact setting the amount of the real consumption goods which are left available to workers. From the point of view of the pure market dynamics, the ‘freedom to choose’ is something pertaining to *individual* consumers, *not* to the working *class* as a whole. As a consequence, the transformation of values into prices of production means a kind of *redoubling* of the value of labor power, with ‘paid labor’ (i.e., the labor-time equivalent *exhibited in the money-prices* of the wage-goods bought in exchange) departing from ‘necessary labor’ (i.e., the abstract labor-time actually performed to *produce* those wage-goods).

The rate of surplus value of the first volume of *Capital* is not ‘erased’ in favour of the other definition preferred both by Sraffa and the New Interpretation. It accurately depicts the *macrosocial* outcome of the *struggle over labor time* between classes, and hence the division between the *total living labor expended* and the *share which has been devoted the reproduction of the working class*. Since, however, prices of production redistribute the new value added among individual capitals in such a way that the producers of wage-goods may obtain a higher or lower amount than actually produced by the labor-power they employed, the gross money profit/money wage rate is a *different* quantitative measure, a *deceptive* form of appearance in circulation *obscuring the origin of surplus value from labor*.

But since I am now breaking the borders of ‘interpretation’ entering into the terrain of ‘reconstruction’, it is better that I stop here.

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