Sraffa and Marx: a reopening of the debate

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Introduction

> In economic theory the conclusions are sometimes less interesting than the route by which they are reached.
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> Piero Sraffa (C26)

The paper traces a hypothetical 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 period, the Italian economist appears mostly critical against the labor theory of value. Things changed in the early 1940s. Sraffa read again *Capital*. He well understood 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 genetical account of 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 'labour-value' in economic thinking. In this same period, Sraffa rejected Bortkiewicz's 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 own conclusions to propose a redefinition of the notion of exploitation based on labor commanded rather than labor contained.

The unpublished material of the early 1940s and of the late 1950s may help to break the no-communication dialogue between Marxists and Sraffa's followers and reopen the debate. This, of course, is possible only if the vulgata that after Sraffa we have to accept a surplus approach mutilated from the labour theory of value, because of the redundancy of the latter, is contested. To do this, the paper actually starts from the original debates of the 1960s and the 1970s, which were particularly alive in Italy, to give the context for an adequate understanding of Sraffa's material in the Archive, It also provides a survey and a critical comment of the conflicting views among Sraffians about the role of Marx in Sraffa's path towards his 1960 book.

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1 I should like to thank the staff at the Wren Library, and especially Jonathan Smith, for their help in my visits to read the Sraffa Papers and Sraffa Collection of books since 1997. On this version – ideally connected with the one presented at the Cambridge Journal of Economics celebratory seminar in Cambridge the 10th of July, 2010 -I incorporate and update an argument about Sraffa and Marx already constituted since 1998 (cfr. Bellofiore and Potier 1998, Bellofiore 2001), and later very much developed in Bellofiore (2008). Of course, the interpretation and reconstruction on Marx is based in my articles and chapters on the author of *Das Kapital*: the initial part on the Italian debates (which I have made available in Bellofiore ed. (1996a, 1997, 1998) is based on my Bellofiore 1997. My intellectual debts are too many to be quoted. The careful reader will soon understand how my thought has been shaped in a dialogue with C. Napoleoni, A. Graziani, M. Messori, G. Chiodi, S. de Brunhoff, D. Foley; s/he will at the same time immediately realize my departures from them. On the Sraffa papers I have benefited from dialogues with many scholars, especially J. P. Potier, H. Kurz, D. Preti, S. Carter, G. Gattei, S. Perri. The dissents, more or less pronunciated, with all of them, except may be Jean Pierre, unfortunately does not allow me the easy solution consisting in shifting upon them the responsibility of the errors in this paper. We quote from the Archive thanks to the kindness of Sraffa's literary executor, P. Garegnani. This version of the paper is not only too long but very provisional.

Some notes in the Archive 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 surplus value 'at prices of production' allow to build a bridge with the New Interpretation of Marx suggested by Duménil and Foley. The paper, however, stresses also the differences: between Sraffa and the New Interpretation; and between both and Marx.

The paper also provides a first criticism of a few recent writings proposing Sraffa as the 'true' Marxist, and ends with some personal considerations.

From the debate in the 1970s to the new approaches to Marx

> In fact, Marx's theory of value has nothing to say directly about the phenomenon of prices, since there is no problem of valorization to analyze in it … analysis of the relations between the classes, or social macroeconomic analysis on the one hand, and analysis of relations within a class or competitive microeconomic analysis on the other, are disparate phenomena that for that reason are governed each by its own logic.
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> Augusto Graziani 1997 [1983], p. 24

When Sraffa's *Production of commodities by means of commodities*, in the following *PoC*, appeared, the relationship between 'values' and 'prices' was interpreted along the lines of what may well be labelled a Received Opinion dating from the 1940s. According to it, Marx would have determined capitalist exchange ratios through a sequence of 'successive' approximations. The proportionality of relative prices to the labour contained in the commodities exchanged - 'labour-values' - is the first approximation embraced by Marx in the first volume of *Capital*. It is an imperfect approximation to full-fledged competitive capitalism, as he well knew. In fact, if relative prices were equal to commodities' relative labour-content, it would be impossible for individual capitals of the same magnitude but different composition of capital to gain the same rate of profits. This imperfection - according to this Traditional Marxism - accounts for the search of a second approximation to the determination of capitalist exchange ratios, the one Marx sketched out in the third volume of *Capital* with his price of production theory. The justification for this sequence of approximations lies in the fact that the distribution of the social product between capital and labour can be adequately represented by a reasoning in terms of labour-values. In other words, the transformation of labour-values into production prices has no feedback on the capital-labour exchange ratio.

The chief representatives of this reading of Marxian theory were Paul M. Sweezy, Ronald L. Meek, and Maurice H. Dobb (Dobb 1937, Sweezy 1942, Meek 1956). Meek and Dobb, in particular, welcomed the book by Sraffa as the long-awaited and rigorous, solution to the 'transformation problem'. In an introduction to an Italian edition of *Capital* in 1964 (published in the US as Dobb 1967) Dobb repeated that in Marx's theory of value it was possible to detect "two levels of approximation, or two stages in the analysis". In the first stage, that is in the first volume of *Capital*, commodities are thought to be exchanged proportionally to their contained labour: "[w]hat this theory of value essentially did was to explain conditions of exchange in terms of conditions of production". In the second stage, that is in the price theory as found in the third volume of *Capital*, commodity exchange takes place through prices of production, that is through ruling prices implying an equal rate of profits for the various industries, divergent from 'labour values'. The argument according to which conditions of production were the factor determining conditions of exchange was attacked by the Neoclassicals, who pointed out the 'great contradiction' between 'labour-values' and 'production prices'. How was it possible to maintain the theory of surplus value if the second stage of the analysis, prices of production, could not be deduced from the first, labour-values? Dobb's answer was that the equations forming the core of Sraffa's book, where methods of production and the (real) wage were taken as the givens from which prices of production and the rate of profits were simultaneously set, implicitly showed the soundness of the logical structure of Marx's work. This opinion may be criticized after *PoC* since it could be argued that there is no need to start from labour-values to determine production prices: the latter can be calculated from the same data from which the former are derived.

The debate in the 1960s and the 1970s evidenced the failure of the Traditional Marxist reading of Marx. Two justifications can be given for such a judgement. The first refers to the debate, which was then very lively in Italy, upon the relationship between the twin categories of 'abstract labour' and 'value'. The second refers to the 'Marx after Sraffa' international controversy in the late 1970s (for a good survey of the time on the Marxian side cfr. Fine and Harris 1979; and for my personal take on the debate until the 1980s cfr. Bellofiore 1980). Peculiar attention will be given here to the Italian discussion, not only because the controversy on Steedman's book is well-known, but because in my view it was more relevant in identifying some problematic points. The Italian Marxist economists, the followers as well as the critics of Sraffa, were at the time deeply influenced by the philosopher Lucio Colletti's path-breaking re-reading of Marx's labour theory of value (see Colletti 1972, Colletti 1979). All seemed to agree with the view that abstract labour as the substance of value had to be interpreted as the labour really separated in exchange from the subjectivity of individual workers who actually performed it in production. This 'alienated' labour becomes the independent subject dominating human beings, who are reduced to be its predicates: the mundane equivalent of Hegel's real hypostases. As a consequence, labour producing for exchange only counts as the (quantitatively determined) expenditure of labour 'without quality'. 'Value' is that kind of generic or abstract wealth which closely reflects the 'pure and simple' labour producing it. Abstract labour and value are then the same thing, the former considered as the activity whose result is the latter. When labour is alienated, its product cannot but be value; and value resolves itself entirely into objectified abstract labour.

Some young Marxists followers of Sraffa - Ferdinando Vianello the most interesting among them (Vianello 1970, 1973) - tried to extend this interpretation into an analytic combination of Marx and Sraffa. In his view, commodities are objectified abstract labour before than, and independently from, exchange and the setting of individual prices. Thus it is always possible (i) to bring back the social product to total direct labour, (ii) to define as 'necessary labour' that part going back to workers, and (iii) to define the residual part as 'surplus labour'. This conclusion, however, was challenged by Claudio Napoleoni (1972a, 1972b). It is true, Napoleoni conceded, that one cannot scientifically understand capitalism without some notion of 'absolute' or 'intrinsic' value. However, this concept - namely, the 'magnitude' of value as the result of the amount of abstract labour expended in its production prior to final exchange on the commodity market - must extend into the category of price of production, and this prolongation cannot be provided by Sraffa's prices. The reason is that arguments like the one proposed by Vianello leave out the category of 'exchange value', as Napoleoni called it - namely, the relative ratio between magnitudes of value, what other Marxists define as 'simple prices', and which we may here identify with (relative) labour-values. Exchange value is here understood as the 'necessary form of appearance' of the absolute value which is intrinsic in the commodity; it is then the essential mediation for the determination of prices (of production). Marx's transformation cannot be split (as Sweezy maintained) into a 'qualitative' analysis of value production, on the one hand, and a 'quantitative' analysis of the distribution of that given value, on the other, without some bridge connecting the two dimensions within the labour theory of value. It may be worth remembering that Colletti sided with Napoleoni against the young Sraffians; and that both these authors strongly criticized the two approximations view. Labour-values, far from being the first approximation to prices, are rather the true outcome of capitalist commodity production as it necessarily manifests itself in universal exchange through money. It thus accurately reflects capitalist reality.

The above conclusion is indeed strengthened in Napoleoni by the consideration that in Marx abstract labour is not only derived from 'exchange as such' but is also deduced as the living labour performed by the wage workers in capitalist production as production for universal exchange (Napoleoni 1975). Production of value is at the same time production of surplus value. From this perspective, money cannot be considered as a mere means of exchange intervening after production, through circulation, to give a simple monetary veil to general, indirect barter. Instead, abstract wealth is the very produce of abstract labour, the (absolute) value within the commodity as ideal money; it is made visible through the realization of ideal money into an actual universal equivalent, embodied into a special commodity isolated from all others (Napoleoni 1973).

Between 1974 and 1976 Lucio Colletti deserted Marxism. Science cannot be based on dialectics, Colletti claimed (Colletti 1975). Another important event in Italian Marxism was the publication in 1976 of a book by Marco Lippi, another follower of Sraffa, which was timely translated into English (Lippi 1979). The failure of the labour theory of value is caused by Marx's 'naturalism'. Marx's idea that labour-values are hidden behind prices would be the direct consequence of the idea that abstract labour is the real cost of production, independently of its historical and social determination. The book by Lippi gave rise to a lively debate culminating into a Conference at the University of Modena in February 1978 (some of the essays are collected in an English translation in Bellofiore ed- (1998)). On this occasion again Napoleoni held a different standpoint, changing at the same time his judgement about Marx and Sraffa (Napoleoni 1978). Napoleoni now fully agreed with the argument that, from a scientific point of view, Sraffa's conclusions are unexceptionable, thus retreating from his early '70s positions. He also conceded that the search for an alternative transformation procedure, in which he engaged in previous years, was nothing but a chimera. At the same time, while accepting the split proposed by Colletti between a scientist and a philosopher in Marx, the philosopher appeared to him as the most interesting of the two in order to understand capitalism. According to Napoleoni, abstract labour is not natural labour, as in Lippi, but, due to its alienated nature, it is exactly the opposite, the capitalist inversion of natural labour. Value theory is the instrument by which Marx develops a philosophical analysis of the alienation of human beings within capitalism as the result of a reification process, whereas price theory is the place for the scientific analysis of the relationships among the reified products of that process. Sraffa means the inevitable break of the connection between the first, qualitative, and the second, quantitative, dimension, because the reification process has revealed itself to be so powerful to destroy any trace of the origin of economic magnitudes in the alienation of labour. However, the failure of Marx's value theory as a quantitative, scientific picture of capitalism, may be fully understood only thanks to that same value theory, interpreted as the ontology presupposed by Marx where abstract labour is considered as the inversion of human labour - namely, the 'essence' of human beings as in the *Paris Manuscripts*.

A similar turn by Napoleoni provoked dramatic effects (for a criticism of Lippi and Napoleoni see Bellofiore 1998). Now – it is to be noted: in the silence of Sraffa himself, who died only in 1983 – everybody accepted that Sraffa's *PoC* amounted to the final dissolution of the labour theory of value, devoid of any analytical usefulness. The efforts of those who, though admitting the presence of difficulties in Marx, still insisted in working within Marxian theory - as a critical political economy where the qualitative and quantitative dimensions could not be separated – were weakened.

The following decades have seen the practical disappearance of the debate, in Italy as elsewhere. The Marxists were increasingly isolated in universities, and the Sraffians were forced to be on the defensive by the revival of orthodox economics. With very few exceptions, a substantial indifference and reciprocal ignorance of what was going on in the other theoretical territory won the day. What is more relevant here is however, first, the fact that there were important developments in international Marxian political economy during the 1980s and 1990s and, second, that since the mid-1990s there was the opening of the Sraffa archives in Cambridge. This could - actually, should - have changed a lot in the conversation between Marxians and Sraffians: opening the way for a dialogue, may be even for a deepening of each other's criticism, but on a new different terrain than in the 1970s. Unfortunately the two scholarships remain mostly rigidly at odds. Most of the scholars in the Sraffian camp did not care to be up to date with what was the understanding of the Marx's labour theory of value becoming widespread into the Marxian camp, thereby repeating obsolete criticisms. Most of the Marxists insisted to take for granted a reading of Sraffa's intentions and results as Neo-Ricardian and un-Marxian which may be open to discussion.

Let us begin with the new approaches to Marx's value theory which, by taking seriously the link between 'value' and 'money', have tried to rescue its internal consistency. I'll take the so-called New Interpretation – in the following NI - by Foley and Duménil as the most representative (Duménil 1980; Foley 1986, 2000).

In a nutshell, the NI can be described as follows. Marx starts from the 'postulate' that at the aggregate level the (new) value added in the period, when exchanged on the market, is the monetary expression of the total direct labour time. Some scholars define this as Marx's 'law of value': it amounts to institute a strict correspondence between, on the one hand, the monetary form taken by the current labour originating the social product, net of non-wage costs, and, on the other, national income, that is, in a two-class society, the sum of wages and gross profits. Once it is assumed that there is nothing but labour behind the production of the (money) value added, we may ask how much abstract labour is 'exhibited' in one monetary unit. The answer is provided by the notion of the 'value of money' – namely, the ratio between the aggregate direct labour expended in production and the money value added. The value of money, then, is the quantity of labour objectified in the net product which can be 'commanded' on the market by one unit of money. It is the reciprocal of the 'monetary expression of (socially necessary) labour-time', or of workers' money value productivity (the money value added per unit of labour).

Following the New Interpretation the 'postulate' implies that the only thing susceptible to change in the transformation of (labour-)values into (production-)prices is the allocation of the given amount of social (direct) labour among the different commodities. The 'law of value' holds true whatever 'law of exchange' is adopted. The rule of price determination may alternatively imply either the proportionality between prices and contained labours, as with the labour-values in the first volume of *Capital*, or their systematic divergence, as with the prices of production in the third volume of *Capital*. With labour-values the quantity of money obtained (or 'commanded') on the market by every individual commodity will exhibit a quantity of labour exactly equal to that required for (or 'contained' in) the production of the commodity itself. On the contrary, when prices diverge from labour-values, the quantity of labour 'commanded' by, the money obtained in exchange by every individual commodity must be different from the labour required to produce it, or labour 'contained'. Labour 'contained' and labour 'commanded' are equal for the money net product of the whole system.

The next, crucial, step consists in the definition of the 'value of labour power'. This is not anymore interpreted as the labour contained in the commodities constituting some kind of subsistence wage-bundle, but rather as the labour commanded by the money wage. It is calculated multiplying the money wage by the value of money, thus determining how much social (direct) labour 'goes back' to workers, a quantity that can well diverge from the labour 'congealed' in the wage goods actually bought by workers. Thanks to the possibility provided by the value of money to 'translate' any monetary magnitude in the labour quantity that magnitude is able to obtain on the market, and abstracting here from the issue of productive vs. unproductive labour, the value of labour power becomes just another name for the share of (money) wages within (money) national income.

Such an approach easily allows us to achieve results similar to Marx's. Indeed, by interpreting the equality between the sum of labour-values and the sum of prices of production as the equality between the net product accounted in labour-values or in production prices, while keeping constant in the transformation the value of labour power as defined above, also the other Marxian equality between the sum of gross profits and the sum of surplus values results by definition. Indeed, the total surplus value is the (money) value added in the period from which variable capital (the money wage bill) is subtracted. As concerns the minuend, the money value added resolves in the sum of wages and profits. We know that the stipulation is that the labour exhibited in national income is equal to the labour required for its production: or, in other words, that for the aggregate net product the labour 'commanded' in exchange by the money value added and the labour 'contained' from production are one and the same. As concerns the subtrahend, variable capital, the NI's definition of the value of labour power makes it nothing but the labour exhibited in, or 'commanded' by, the money wage bill. The difference, which is the total surplus value, cannot then but be equal to the labour exhibited in, or 'commanded' by, money gross profits. The aggregate equivalence between gross profits and surplus value necessarily follows from the premises and from the definitions adopted, as indeed their proponents claim.

For the sake of intellectual curiosity, one could continue the exercise of these tautological definitions and obtain both of Marx's equalities in their original form. To this end, only two steps more are needed. First, Marx's constant capital must be reinterpreted, along the lines of the NI definition of variable capital, as the labour exhibited in the money capital buying the means of production, and not as the labour required for their production (see, for example, Moseley 1994; but also Wollf, Roberts, Callari 1982). Second, the equality between the sum of values and the sum of prices must be restored as referring to gross output. However, once the NI's postulate is granted, the former step automatically gives way to the latter. All the aliquot parts among which the total value produced is to be divided - that is constant capital, variable capital, and the surplus value - are now interpreted as the labour monetarily exhibited in the three 'segments' in which the given total value is resolved. The labour exhibited in the net product at prices is stipulated to come from the objectification of living labour: since the 'value' of the means of production is now defined as their 'price' (that is, since constant capital is a monetary magnitude, as variable capital, and it is interpreted as the material elements of constant capital evaluated at prices of production), also the 'value' of gross output (the value which the workers have added in the period to the value of constant capital) must be identical with its 'price' (the price of net product, national income, plus the price of constant capital), because the value of constant capital and the price of constant capital are one and the same thing.

Which answers do these new interpretations of Marxian value theory give to the issues debated in the 1970s, if any? Compared to interpretations like Dobb's, unquestionable progress has been made, since here the notions of 'value' and 'money' are made inseparable. It is now literally impossible to talk of the former without immediately referring to the latter. Value is the intermediate notion between the labour producing that same value (according to the 'law of value'), on the one hand, and the money exhibiting it into some price-form (following various alternative 'laws of exchange'), on the other. The monetary nature of universal exchange imposes from the start the introduction of the concept of 'price', whose standard is the monetary unit, as distinct from the concept of (absolute or intrinsic) value, whose measure is (socially necessary) labour time: this is true whether prices correspond or not to labour-values. The two approximations argument becomes meaningless, and it is replaced by one according to which 'simple prices' and production prices are just two among many possible and alternative price-forms. Labour-values is the price-form in a universal but not-yet capitalist commodity exchange. Production price is the price-form in a universal and already-capitalist commodity exchange, where competition is expressed as the distribution of gross profits according to an uniform rate of profits in the various industries.

The reader will remember, however, that in a Sraffa-inspired author as Vianello the idea of the NI that ‘values’ and ‘prices’ are two alternative, and not successive, laws of exchange was already anticipated. But this signals the fact that the category of ‘exchange value’ in Napoleoni’s sense (i.e., relative labour-values) looses, for the NI just like in Vianello, the role of the 'real mediation' in the deduction going from ‘value’ production to the ‘production price’ rule of exchange. From this crops up again a dubious dichotomy between capitalist production of commodities by living labour, exemplified by the ‘law of value’, and circulation-distribution of objectified labour in terms of the capitalist ‘law of exchange’, i.e. through prices of production. Indeed, the notions which in the NI and other new approaches to Marx should connect the two spheres - the value of money and the value of labour power - are in the nature of ex post observational magnitudes, and hence they cannot provide the desired theoretical bridge. It is interesting also to observe that in the late 1970s another author, who was then a pupil of Napoleoni but still working in the ‘abstract’ labour theory of value approach, Marcello Messori, in the context of a criticism of Sraffa and also of Vianello, proposed a re-reading of the transformation problem which was intended to open the way to a determination of prices of production alternative to Sraffa’s. He reconstructed Marx’s argument as having the necessity to assume as a normalization procedure what he called the equalization of the ‘surpluses’- between, that is, variable capital and surplus value expressed at labour-values or at production-prices (Messori 1979). The gist of the NI’s postulate was already there. Unfortunately Messori, as the same Napoleoni before Modena, was convinced that Marx could be reinstated only if a solution to the transformation different than in *PoC* was found.

This remained a chimera, and Messori too left Marxism in a few years. Already at the time (1979-80) I was convinced that Sraffa’s prices *are* the prices of production; that a world where the methods of production are given *does* make the labour theory of value redundant; but that all this notwithstanding prices of production are *meaningless* if they are not grounded in Marx’s labour theory of value. But it is now time to move to Sraffa’s unpublished material, and to see if it opens new perspectives on these matters.

Sraffa before and after the opening of the Archives

> To say what Sraffa’s cultural project was which he pursued with persistence and extreme coherence through the whole of his life both in practical behaviour or in theoretical work, I would put it in this way. First of all, Sraffa was a communist, in the negative sense in which the word is used by Marx, to imply an ongoing critique of the given historical process. This is what he was, and always aimed to be. However, at the same time, he was convinced that the critique should be entirely rewritten, because the old one was no longer sufficient.
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> C. Napoleoni 1996 (1988), p. 299

The Sraffa archives - at the Wren Library, Trinity College, Cambridge, UK - were opened for consultation in the 1990s, and I began some work there in the second half of that decade. The most widespread reading of the Marx-Sraffa relationship - almost a vulgata, especially among the Sraffians - was the one embodied in Steedman’s *Marx after Sraffa* (Steedman 1977). What *PoC* showed, he argued, was that the labour theory of value was dispensable in a scientific analysis of capitalism. What was needed was just a set of objective data - physical and material - about the methods of production. In a Classical-Marxian approach this had to be complemented by the real wage as determined from outside. Labour-values themselves are derived from these ‘givens’. Moreover, most of the conclusions derived from value theory (as the theory of relative prices based on labour-values) can be shown to be analytically useless. Marx’s magnitudes of value are redundant relative to the task of determining (simultaneously, and not successively, as Marx pretended) the rate of profits and the prices of production. This irrelevance of value theory does not necessarily mean a criticism of the other parts of

Marx's economic legacy, since most of it may be confirmed within the Sraffa-based 'surplus approach'.

Once again, these bold conclusions - whatever their merits - met the silence of Sraffa. They were in contrast with the anedoctical evidence put forward by friends and colleagues. So, for example, Joan Robinson (1977: 56) wrote: "Piero has always stuck close to pure unadultered Marx and regards my amendments with suspicion." Similar recollections were written by Antonio Giolitti (1992: 80), who met Sraffa several times between 1948 and 1952: Sraffa, he says, was always urging him not to have doubts about Marx's theory of surplus value and also on the feasibility of Soviet planning. Adopting a very different reading (and rightly so!) of the Marxian labour theory of value, Paul M. Sweezy, one of the most important figures in what I've called Traditional Marxism, commented in 1987:

> [Sraffa] always was a loyal Marxist, in the sense of himself adhering to the labor theory of value. But he didn't write about that. Now that was Sraffa's peculiarity [...] Thinking that it is possible to get along without a value theory (using the term in a broad sense to include accumulation theory and so on) seems to me to be almost total bankruptcy. It's no good at all. And I don't think anything has come of it. It was good to show the limitations, the fallacies, the internal inconsistencies of neoclassical theory, that was fine, that was important. But to think that on that basis a theory with anything like the scope and purposes of Marxism can be developed is quite wrong. (Sweezy 1987: 13-14)

One could have expected that the opening of the Archives would have led scholars to inquiry if there was something unexpected about the Marx-Sraffa connection. At first, definitely, it was not so. The relationship with Marshall, Keynes, Ricardo, Hayek, and others, was at the center of the debate for most scholars. Not Marx. It was customary, as it often still is nowadays, to argue that the received wisdom in the Sraffian camp was correct, and that the papers un-doubtly, and un-problematically, confirmed it. This was in fact the usual refrain on many issues, not merely on the Sraffa-Marx relation: from monetary analyses to price and distribution theory. The first preoccupation seemed to confirm one's own already established views. On the contrary, I must confess that I myself was very much surprised from what I read in the Archives. So much so, that I did not refrain from inserting some references to the Sraffa-Marx topic in a couple of papers already in 1998: one with Jean-Pierre Potier, on new findings from the Sraffa archives, and the other a rather extende commentary on a paper devoted to other issues (e.g., on Sraffa's on monetary analyses). At a conference in Turin that same year, after my exposition, an economist privately asked me if 'really' the materials I referred to 'were there'. At my positive answer, she replied: you will never be allowed to write about this. Luckily she was wrong!

In the following I'll use some of the materials collected from my many visits at the Wren Library. The reader has to realise that - as long as the Sraffa papers are still unpublished, and being an independent researcher not associated with the (hopefully soon forthcoming) publication of a selection from the unpublished material: something whose importance cannot be exaggerated - it is not easy to pursue this kind of inquiry. That is one of the reasons why I offer my conclusions as very provisional. But may be there is something interesting in a look at the papers from a stance which is outside both the Marxian 'orthodoxy' nor can be classified as Sraffian.

An authoritative example of the attitude of the followers of Sraffa on the topic under discussion can be found in many publications Heinz Kurz (who is the general editor of the forthchoming selection of the papers and correspondence of Sraffa) presented in several conferences and published in journals, especially between 1998 and 2002 (Kurz, 1998a, 1998b, 1998c, 2002). According to this author, there are some widespread but untenable views on the relationship between the labour theory of value and Sraffa's work which have to be dispelled (C 185). The starting point of Sraffa's research was not Marx but Marshall. Moreover, Sraffa was critical of the idea that labour had a special gift in the determination of value, a proposition which he dubbed as metaphysical. It was actually nothing but a corruption of

Petty's and Phisiocrats 'physical real costs'. From here Kurz goes on stressing that Sraffa knew well that in special cases, and in exceedingly special circumstances - e.g., when there are no profits, or equal proportions between direct labour and means of production in all industries are assumed - prices conforms to labour-values, and relative exchange ratios are proportional to the labour contained in the various commodities. But this commentator is very resolute in affirming that there was nothing interesting in these cases.

If this was the situation in 1998, things changed in a few years. Some conjectural histories about how Sraffa related to Marx in the long preparation of *PoC* have been penned out: as I shall say, some of the most interesting ones - index may be of some shift of emphasis, if not conclusions, relative to his early articles - are Kurz's. I myself will follow this path. My intention is to stress the discontinuity between the various periods in which Sraffa developed the argument which had to become the 1960 book: on the existence of this discontinuity there is now a kind of consensus. This does not reach into a common opinion about what was Sraffa's attitude to Marx in each of the phases.

Sraffa's journey in writing the book begun at the end of 1927. The first span of time in which the Italian economist worked at his book lasted until the the beginning of the 1930s (most likely, 1931). In this period, as Kurz rightly remarks, Sraffa appears mostly critical against the labour theory of value (C 185). Things are different in the second period in which Sraffa worked on his book (1940-1945), especially until mid-1943. In the 1940 Sraffa reads again the first volume of *Capital*: as I shall shaw, this re-reading was crucial for him. The object of inquiry with which Sraffa dealt was a typically Ricardian one: the determination of relative prices in a fully competitive setting, given what may be called the 'productive configuration' (means of production and output levels are known magnitudes) and the rule of distribution of the surplus. It was Ricardian because this implies, in Marxian terms, that the length of the social working day is taken as given (Rowthorn 1974).

It is astonishing, then, that contrary to what the 1998-2002 readers of Kurz's papers might easily guess, the hero of Sraffa was Marx even more than Ricardo. More than that, the documents at the Wren show that, for some years at least, Sraffa was convinced that his forthcoming book was re-instating the substantial soundness of Marx's economics. This in a sense was true even of his labour theory of value, his price theory, his law of the tendential fall in the profit rate. In this same period, Sraffa rejected Bortkiewicz attacks against Marx. Later on Sraffa – reluctantly – had to change his mind on the continuity between his results and Marx's. How far this change of mind goes is still to be assessed, in my view.

Then we have the final round of elaboration for the book, mostly between 1955 and 1958. What is sure is that even after publishing his book in 1960 he maintained a positive judgment on Marx's transformation procedure. He even used his conclusions to propose a redefinition of the notion of exploitation based on labor commanded rather than labor contained, but still in relation to Marx. And we do even find some unexpected points of contact with the NI which have to be accounted for, and understood. These latter documents seems to be downplayed in the Sraffian literature. They may raise some interesting questions, and open new interesting prospects.

In the following I shall quote following the classification of the Sraffa Papers at the Wren Library. In the quotes the italics are mine, whereas the underlining is Sraffa's.

The '20s. From the 'metaphysics' of value to the equations

> 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 [...] This would be simply a

> translation of Marx into English, from the forms of Hegelian metaphysics to the forms of Hume's metaphysics.
>
> Piero Sraffa, late 1920s (D3/12/4: 15).

Before the end of 1927, Sraffa considered Marx in some notes titled 'Avventure della teoria del valore' (Adventures of value theory, D1/3: 3-4). The rejection of Marx since the 1870s was due to a 'confusion': it was thought that Marx's approach was grounded on the 'cost of production' in labour 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. If Marx's theory can stand upon the basis of Ricardo's T.V – Sraffa writes - it can equally well stand on the basis of Marshall. 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, where Sraffa observes that the later development of Marshall is not at all incompatible with Marx's theory of value (D3/12/3: 10-11).

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 for Sraffa 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. 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.

Thus, it may be that when Sraffa 'begins' from Marshall, it is just because he thought that the latter was (at least partly) compatible with Marx. A criticism of the idea that Marx was somehow behind Sraffa's research before the end of 1927 has been however advanced by Garegnani (2005: 485 and 490). Garegnani also disagrees with the idea that the theory of distribution may be separated from (and comes before) the theory of prices, contrasting it with the later separation between the joint determination of prices and distribution, on the one hand, and the determination of outputs, on the other (Garegnani 2005: 473).

What is for sure is that Sraffa's perspective on Marx as well as on the Classicals started to change from the autumn of 1927 and the winter of 1927-28, when the theoretical construction of *PoC* begins. Garegnani sees in these months a fundamental turning point. The methodological view, and the historiographical position, may appear at first sight to remain the same. But it is in these months that we see the beginning of Sraffa's reconstructive theoretical effort based on 'physical real costs', which in the end refers to the subsistence directly and indirectly necessary to produce the commodities. Physical real costs were in opposition to Marshall's subjective real costs: Sraffa ended up there after he was looking for an 'ultimate standard of value' (Garegnani 2005: 474). It meant at the same time a break with his prior reading of the Classicals in terms of constant returns (Garegnani 2005: 475). This way he rediscovered the Quesnay-Smith-Ricardo 'surplus approach' (with surplus being the excess of the product over the initial stock, and hence over cost).

In a note on the 'degenerazione del concetto di costo e valore' (degeneration of the notion of cost and value) 'physicalism' takes an extreme shape and is most evident:

> 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).

In this outlook, the wage is given in real terms, as an inventory of commodities, almost biological. The 'degeneration' Sraffa refers to leads from what he sees as the right view, reducing cost to 'food' and looking at subsistence as a 'physical' entity, to the less clear-cut perspective which substitutes 'labor' to cost. The evolution of Sraffa to this position – where objective becomes indistinguishable from physical - was gradual for Kurz and abrupt for Garegnani. The trouble for Sraffa likely had to do with his conviction that Smith's 'toil and trouble' was a notion implying the risk of easily slipping into the vulgar view that what matters is some psychological and non-objective cost. Labour 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.

It is then quite natural that in the Lectures of 1928-1931 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 mainly the stock of material (i.e., food for the workers) required to produce a commodity. For the latter line, the cost of production is the sum of efforts and sacrifices involved in the abstinence and in the labour of all kinds that is directly or indirectly required to produce 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 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 this second phase – namely, the first in the path leading - Sraffa upholds objectivism in a very radical form, that is as a 'physicalist' approach. Value is therefore linked to nothing more than the material cost. What about labour properly speaking? Sraffa writes that Marx's metaphysics was quite reasonable: unfortunately, after so many decades, it was not understood anymore. The difficulty to be overcome is one of 'translation'. Interpreters like Kurz or Garegnani insist that in the late 1920s Sraffa strongly criticized the idea that relative prices has anything to do with human labor. It cannot be disputed that we even read an explicit strong attack against the labour theory of value as based on the efforts of human beings:

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[2] that attributes to human labour a special gift of

2 Anybody with minimal first-hand knowledge of Marx will agree that a statement like this would be approved by Marx, since for him the commodity is a 'mystical' entity, which has extrasensory features attached to its sensuous existence, and

> 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).

Indeed, 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[3]. [...] 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).

What however these authors in the Sraffian tradition seem to sidestep is that this does not lead Sraffa to a wholesale rejection of the labor theory of value, if the latter is disjointed from just a too crude theory of relative prices. The clearest example can be found in a note from these years where he adamantly distinguishes between two notions of 'human' labour: 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 the first sense: a non measurable quantity, or rather not a q. at all). (D3/12/11: 64).

Sraffa is criticizing only the view according to which the value of the individual commodity can be traced back to the quantity of labour alone, and not the other perspective. This latter is not far from the 'macrosocial' point of view which, one way or another, is at the heart of the current macro-monetary approaches to Marx. There is however a problem with the macro perspective, as he perceived it, this early Sraffa suggests. It cannot be observed, and then it cannot be measured. It is merely a qualitative perspective. We shall see that Sraffa ended up with a different opinion on this issue, coming closer to the NI outlook.

Kurz writes that in the period 1927-1931 Sraffa was not concerned with solving the so-called transformation problem (2002: 185). He is absolutely right here. But the reasons for this are fascinating. In a letter of the 15th of July 1928 he affirms that the irreconcilable divergence of the theory with reality arises out of an internal contradiction of reality itself (D3/12/7: 103). Another thing is intriguing. Sraffa was slowly building an alternative way for the determination of prices, in the Classical-Marxian line of 'natural' or production prices. In this prehistory of *PoC* he started from what he called 'first' and 'second' equations. The former are equations without surplus; the latter equations with surplus, with labour reduced to the means of subsistence reproducing it.

On this issue we find a remarkable divide among Sraffa's followers. Kurz and Garegnani are keen to separate the Italian economist's discovery procedure of his equations from an explicit re-reading of Marx. They insist that the drafting of the equations must be situated on the background of the problematic Sraffa opened with his 1925-26 articles and his critique of Marshall, and the difficulties he met on the way: so that eventually he met Ricardo, beginning with Petty and the Physiocrats. Marx has no privileged status in the analytical construction of the 'core' (though he may have had in preparing the way, or on other issues). De Vivo (2003, p. 6 and 9-10) and Gilibert (2004: 28), on the contrary, put

attributes it to the *form* of value, i.e. exactly to what was lacking in Ricardo's analysis. 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 well knew this.

3 Again, as the reader of this paper should grasp from our first part, and will understand anew at the end, a proposition like this is nowadays common stock in Marxian scholarship today, since labour can count in the value dimension only through its abstraction and hence monetary exhibition.

forward a different hypothesis: that from the late 1920s Marx - not Marshall, nor, Ricardo nor Petty plus the Physiocrats - was the inspiration. Not, however, as one might expect, the Marx of *Capital*, Volume I (the Marx of 'labour-values') or the Marx of *Capital, Volume* III (the Marx of the prices of production). Rather, the Marx of *Capital*, Volume II: the Marx of the 'schemes of reproduction'. According to both authors, Sraffa knew already Volume I before the War. But to prepare his Advanced lectures on the theory of value lecture, however, Sraffa read the *Theory of Surplus Value* (recently and integrally translated into French). And in 1927 he read also, for the first time, Volume II, again in a French translation. Contrary to the position of Kurz I summarized before, but also in contrast with Garegnani[4], De Vivo and Gilibert contend that Marx was Sraffa's true starting point. Though this, to be sure – Gilibert is explicit on this (2003: 29); De Vivo's attitude is less in the open - had nothing to do with adopting a 'strict' Marxist point of view, linked to the labour theory of value, once again identified with a successivist approach to production prices beginning from labour-values.

Let us follow Gilibert's argument. In July 1928 Sraffa (D3/12/9: 11) 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: (i) "simple reproduction without surplus value"; (ii) "simple reproduction with surplus value entirely consumed", and the same without an equal rate of profits; (iii) "reproduction with total accumulation", and proportional accumulation; (iv) "reproduction with accelerated accumulation" because of inventions. In winter 1927, Sraffa had already begun to write down systems of equations. According to this line, his 'first equations' are exactly simple reproduction scheme without surplus, while 'second equations' are extended reproduction scheme with surplus totally accumulated by capitalist reinvesting in their own industries, with a proportional rate of growth and balanced accumulation.

Reproduction with total accumulation proportional in every industry was something which was clearly in a Physiocratic descendance (and, in fact, Marx's scheme of reproduction took explicitely the *Tableau économique* as a model). Even more close was the family resemblance, though not identity, with the corn-corn model the Italian economist was to meet preparing Ricardo's *Works and Correspondance*. Sraffa soon abandoned the 'common growth' version of his equations in favour of what promised to be a more general 'common rate of profit' version (Gilibert 2003: 36).

The '40s. From the Hypothesis to the Standard Commodity

A questo punto soltanto dire che è Old Moor.
[Only now say this is Old Moor]

Piero Sraffa, 1942 (D3/12/16)

Coming back to work on his book in the early 1940s Sraffa sketched an 'Hypothesis' that he believed was close to Marx, and that he also labeled as "My" Hypothesis. The 'Hypo', as he often shortened it, will crucially drive his research for a few years, and will be reluctantly abandoned a few years later, leaving however permanent traces. The 'surplus rate' (i.e., the physical ratio of the social product over the whole of the anticipated means of production) – which, as Gilibert (2003: 37) says, "depends only on technical factors and is not affected by economic relative prices or social income distribution

4 Garegnani (2005: 488) criticizes De Vivo and Gilibert. The specific references to the schemes of reproduction in the Sraffa papers of this period, and the similarity between Sraffa's equations and the schemes, can be easily explained – he submits- taking into account that the former as well as the latter refer to the output proportions ensuring replacement. Kurz and his co-authors limits Marx's influence in those years to Sraffa's reading of the *Theories of Surplus Value*, and the role this played in the rediscovery of the surplus approach of the Classicals.

factors" - is put equal to the 'maximum rate of profits' (i.e., to the value of profits over the value of anticipated capital when wages are zero: 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 of the non-wage capital advanced). The 'Hypo' asserts that, though income distribution may be influenced by prices, this ratio, on average, is not, and it is constant.

Thanks to the Hypo, in the early 1940s Marx seems to be not so much the starting point of Sraffa's investigation (as in the 1920s) but rather quite the end of the road - at least in his own understanding of the time. Let us see why. 'Third' equations, with surplus and an equal rate of profit, were written down in the early 1940s (on this and the following see again Gilibert 2003 and De Vivo 2003). At first, when labour was explicitly considered, it was considered as paid in advance, unlike in *PoC*. Between 1940-1943 Sraffa holds fast to the 'Hypo' as long as he can. Of course, the latter amounts to take gross product and non-wage capital as identical composite commodities. It is like a one-commodity system, or a system where inputs and outputs have the same 'composition'.

Nowadays this looks like the most un-Sraffian proposition of all, depending on the composition of capital being the same for product and capital (De Vivo 2003: 16-ff.). If this condition could be granted - and it cannot - the price determination could have been pursued referring to labour-values all the way through, though with deviations. Start with prices when the rate of profit is nihil (so that prices are nothing but 'labour-values', and proportional to the labour contained in the commodities to be exchanged). This allows to evaluate net product and capital at these prices. According to the Hypo the ratio between the value of the product and the value of capital is taken to be constant, whatever the profit factor. It is the same as R, the maximum rate of profits, which in its turn 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 when there are no wages. The actual rate of profit is then determined, and through it the actual prices are fixed. In a way, this is a substitute to Marx's successivist procedure in his transformation. Indeed, if we assume that the value of net product and the total quantity of labor employed are 'normalized', setting both equal to unity (in order that the former is the standard for prices, and the latter the standard for labour), two conclusions follow. First, the wage becomes Ricardo's 'proportional wage' (the share of wage in national income) and close to Marx's 'relative wage' (which is the inverse of the rate of surplus value). And, second, 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 can be computed at the different levels of the wage.

It is clear that we are not far away from the 1960 book conclusions in its first part. But it has also to be said that this train of thought is, once again, an intriguing one to be pursued by somebody who allegedly found no analytical role for labour-value. This, we saw, is Kurz's position. Garegnani (2005: 485) has a weaker statement, since he sees a basic analytical role in the labour theory of value, "that of expressing independently of distribution the aggregate on which a theory founded on the notion of social surplus naturally operates". And De Vivo, 2003 (fn 1, on p.18) seems to attribute some role in Sraffa's Hypo to the fact that the ratio between value of product and value of constant capital must be equal to ratios of labour embodied[5].

5 The careful reader will notice that I *never* use the term labour 'embodied', but rather employ labour 'contained'. Though that expression it is common stock among Sraffians and Marxists alike, that expression is foreign to *Das Kapital*. Only concrete labour is 'embodied' in the use value of the commodity. Instead, it is the intrinsic (or absolute) value, the immaterial 'ghost' produced by abstract labour, which needs to become embodied in (gold as) money. Hence, it is money which is, properly speaking, value embodied. No actual existence of value until the ghost is actualized into money, though this is anticipated in commodities' expected prices. Then, the chrysalis has to become a butterfly, and money as the universal equivalent has to become capital: value producing more value, money begetting more money. This can happen, for Marx, only if the ghost turns into a vampire, sucking the fluid of living labour from workers' bodies in the mechanical monster that is the capitalist factory. See Bellofiore (2009).

It is indisputable that under the presuppositions of the Hypo and of the equal composition of capital not only Marx's, but also Marginalist value theory, would be rescued unscathed. And it is true that Sraffa quickly realizes that his Hypo could not play the role he hoped for because it lacks generality. If capital compositions differ, the proportions of surplus value and of profits in Social Income are not the same anymore. At the same time, the Hypo plus the argument about balanced reproduction allow to see that prices are proportional to labour-values when the rate of profits is zero or is at its maximum, and hence to compute the divergences of prices at the intermediate positions looking at them as nothing but deviations. Assume, at this point, that the value of net product and the total quantity of labour 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.

In the early 1940s, when Sraffa still hoped he could argue for the generality of his Hypo, he wrote a note, *Crosscap*[6]. It showed, more or less, the sequence of the argument he had in mind to develop in the book. He was convinced – as he wrote - 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, and to be revealed only at the end of the book It was an exceedingly confident programm. In August 1942 Sraffa realized that the Hypo was inescapably not general. The argumentative sequence just sketched does not hold anymore: something that he felt as a 'disaster of the model' because the wage-profit relationship loses its linearity (De Vivo 2003: 17-8 and Gilibert 2006: 46 : the lack of 'transparency' of exploitation in a Marxian meaning must have played a role here). As Gilibert reminds us, the procedure should rather be as in *PoC*, with the wage paid *ante factum*: first, starting from a given productive configuration, 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[7]. The Standard Commodity was

6 The note is in Italian. It is partially reported and translated in English by Gilibert (2003: 30). It is quoted in its entirety in my chapter in the book edited by Chiodi and Ditta (Bellofiore 2008: 89-90). Note the following phrase: "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))" (D3/12/16: @@@).

7 For an argument about the reasons why the Standard Commodity was so important for Sraffa see Gilibert (2006: 47-8). Sraffa was interested in showing the conditions which make prices 'necessary' so that the regular reproduction of the system may be granted. When labour is not explicitly introduced the necessity has to do with technological-biological matters and (in the case of an economy producing a surplus) with the institutional role of the equal distribution of profits amongst industries. When labour is introduced explicitly, however, the distribution of the surplus between (proportional) wage and profit (rate) creates the appearance that what is to be distributed is affected by distribution. If the wage is measured in terms of the Standard Commodity the distributional setting seems to be fixed logically before prices. This however may be disputed. As Claudio Napoleoni wrote: "the measure problem, the reduction of things to a homogeneous state, has already been resolved in Sraffa by means of his system of equilibrium, in which the choice of standard measure is, at least in principle, totally indifferent. A functional relation between profit rate and wage can be obtained using any standard measure, and this is all that is required to proceed to a surplus value theory. The fact that such a relation is linear when the standard product is used as a basis for measure, may perhaps make this particular standard measure more useful than others – it does not, however, give it any particular theoretical importance" (Napoleoni 1961 [1992]: 262). I shall show that actually the choice of the standard in the first two chapters was not so 'indifferent', leading to a theoretical intersection with the NI. At the same time, I agree that the role of the Standard Commodity should not be overstated, as I think is done by some Marxian intepreters of the Sraffa's unpublished materials who feel themselves as working in the NI footsteps.

first identified in January-February 1944 and progressively displaced the Hypo – which, however, as we shall see, did not completely disappear, and will resurface much later.

Bortkiewicz and the production of commodities by labour out of commodities

> 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.
>
> T.A. Jackson, *Dialectics. The logic of marxism*, Lawrence & Wishart chapter VI: «The Dialectic of Capitalist Production»[8]

Let us now devote some attention to a few of the detailed comments which Sraffa wrote in 1943 on Bortkiewicz, in the following B. About the notebook where the critical reaction by Sraffa is embodied we can profit of a very long and good article published in HOPE by Gehrke and Kurz (2006), in the following GK. It is most interesting because it signals a shift in emphasis relative to the earlier Kurz's papers we referred to above, published between 1998 and 2002. It is repeated that Sraffa "originally" thought that Marx's reconstruction involved a corruption of the Classical tradition and their objectivist perspective. And it is also stressed that when labour is considered as an economic quantity by the Italian economist, this goes along with a new wage concept of Ricardian origin: the wage seen as a share of the surplus product, paid in some abstract standard and in proportion to the labour time expended by workers: the 'proportional wage'.

At the same time, to give the background to understand the comments to B, GK have to recognize that "Sraffa at the beginning of the 1940s credits Marx with a number of *analytical* achievements" (2006: 109, my Italics). They observe that this was something peculiar to this period: in the 1927-31 the Italian economist looked unaware of these achievements, and his findings "must have come as a formidable surprise to him" (ibid.). The surprise may have caught Kurz himself in reading this material. Repeatedly, in this paper, most of Sraffa's admiration towards Marx is argued to be misdirected, as something which should be rather devoted to Ricardo, or the Ricardo in Marx[9]. Amongst Marx's criticism of Ricardo appreciated by Sraffa are the following: the proposition that Ricardo wrongly identified the rate of surplus value with the rate of profits, and that thus the latter may fall with the former constant**;** even more so, the view of the system of production as a circular process, as in the Physiocrats, with capital composed also by constant capital (other commodities) and then not resolved entirely into variable capital (wages) in a finite number of steps; from which it follows that the actual rate of profits was bounded from above by a maximum rate of profits (total direct labour expended in the year over social constant capital), which, as we already said, is nothing but the inverse of the composition of capital of the system as a whole.

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8 The quote, which includes in it the title of the 1960 book, is taken from the copy in the Sraffa Collection. The Italian economist marked this phrase with a straight line.

9 Some examples: on p. 111 the discovery of the maximum rate of profits in circular systems of production, which Sraffa acknowledges to Marx, is said to be already there in Ricardo (admittedly in an imperfect way, since all capital are reduced to wages by this latter); on p. 119, the given rate of surplus value by Marx is nothing but Ricardo's taking as given the proportion of the annual labour of the country devoted to support the labourers. And so on.

Marx's 'Value Hypothesis', say GK, was nothing but Sraffa's 'Hypo', making the social capital to social output ratio independent of the rate of profits. KG cannot but confirm that in the 1940s the terminology adopted by Sraffa is very often related to Marxian value theory. But, they affirm, "Marx's concepts are adapted to Sraffa's own non-labour value-based approach" (2006: 111). However, if it is true that in the 1927-31 period a proposition of this kind was in a sense uncontroversial, about the 1940-42 years (and even later) it slides dangerously into a *petitio principii*. It is, by the way, built upon an understanding of the labour theory of value as a successivist price theory, which I have already contested and on which I'll turn later on. Later on GK reiterates that "the classical theory of value and distribution could be elaborated without any reference to "labour values" (2006: 118) that this proposition, correct in its own term (if we put Marx aside from the Classicals), can be applied to the Sraffa of the early 1940s is not at all granted, even with this restricted meaning.

Let us see why. In his notebook Sraffa rejects B'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. B, following Tugan-Baranowski, assumes different 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 capital composition must be the same in the various sectors (D1/91: 19-20). Marx argues that values and prices are identical for the products having the same composition of the social average. B 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, what the Italian economists labels the organic composition[10] is truly the most instructive element.

Against B, Sraffa brings up a formal objection, together with a more fundamental one. Let us start with the former. As GK remind us, B 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 B 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: 16).

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 – labour. This is something which cannot be cancelled without obscuring a major fact, without disguising something vital and necessary to the theory.

In his notes against B, Sraffa insists that Marx's transformation is approximately correct, and that values

10 The Marxian concept of capital composition is very articulated. In *Capital* the notion of organic composition is quite different from the way it is used in Sraffian (and also most Marxian) literature. I have not the possibility to enter into the details here.

must be taken as the starting point of the corrections. The argument is that there is no reason to think that organic compositions systematically differ. The point is clearly linked to reading Marx's Value Hypothesis through the prism of Sraffa's own Hypo, redefined as a Statistical Hypothesis (on which see also GK 2006: 111, 143, where they show it was already anticipated in 1931), based on the statistical compensation of large numbers (D3/12/35: 28). Note that we meet the same argument again in 1945, after the identification of the Standard Commodity, in the context of a rebuttal levelled against Böhm-Bawerk. The correct profit rate is not in 'value' terms but in 'production price' terms. However, 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 <u>price</u> of the net social product, at all values of r, is equal to its <u>value</u>, 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 <u>only</u> 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 fluctuactions' (ib., p. 140). Böhm takes this for a tautology of which he makes fun at great length […]. However, it is not <u>exactly</u> but <u>approximately</u> that the two 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).

Compare this with GK when they write: "Marx was only driven to adopting his *erroneous* transformation algorithm because it did not have the method of simultaneous equations at his disposal" (2006: 124, my Italics). GK, however, correctly register Sraffa's criticism of Tugan Baranovski (and Bortkiewicz) on differing capital compositions in the three Departments 125. And they also show that the (Statistical) Hypothesis means that the two social aggregates – the new value produced in the period (V + S) and the constant capital C. – "could be taken to exhibit approximately the *same* organic composition precisely because each of them is made up of a large number of individual commodities that are produced with possibly vastly *different* organic compositions of capital" (2006: 125)

We can now go back to the 1943 notes. Sraffa admits that B "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 <u>w</u>, or a proportion of the Revenue. This is (1) brought to agree with (2); and the conclusion that <u>all</u> capital must be taken into account for the rate of profits becomes true. (D1/91: 20)

Any mechanistic view of distribution must thereby be abandoned, in favour of a view where distribution is linked to social aspects. More than that, thie Italian economist clarifies the transformation of wages into the proportion concept means introducing (in all but in name) money, taking the Annual Revenue (the price of net product) as unit of money (D3/12/35: 9 (1)). We are very far away from the strong 'physicalist' position of the Sraffa of the 1920s. Sraffa's 'objectivism' (on which see Kurz and Salvadori turns into a position leaning towards a 'conventionalist' position.

The notes on B, as I anticipated, rejects the latter's criticisms of the tendential fall in the profit rate. Here I agree with GK. The rate of profits depends on the maximum rate of profits (the inverse of capital composition) and the rate of surplus value (the proportional wage). Sraffa reads Marx's argument as one where accumulation abstracts from innovation, and technical knowledge is constant. This reading may be disputed on philological grounds. Under those assumptions, however, if distribution does not change, and if L/C falls, the actual rate of profits, r, must fall too. GK also correctly maintain that for Sraffa's Marx the money wage rate is pushed up by accumulation, this raises the real wage rate, but at the same time the relative wage falls too. On this point I think Sraffa correctly represented Marx's train of thought, and his reading is not far from Luxemburg's.

Use of the notion of surplus value

> By the purchase of labour-power, the capitalist incorporates labour, as a living ferment, with the lifeless constituents of the product. From his point of view, the labour-process is nothing more than the consumption of the commodity purchased, *i. e.,* of labour-power; but this consumption cannot be effected except by supplying the labour-power with the means of production.
>
> Karl Marx, *Capital*, Volume I, chapter 7

The above reconstruction justifies the question if, arguing in the way he does against B, Sraffa changed his mind relative to the late 1920s significantly. The answer has to be positive, and this in fact appears now to be openly admitted, one way or the other, by Sraffian authors. But we may also raise a more intriguing and interesting question. Does the Sraffa of the early 1940s found room for a 'labour theory of value' in some sense? I mean: in a different sense than a particular law of exchange determining individual prices. A sense which may give some quantitative content, and not only a qualitative understanding, to the second connotation of it as a 'cause' of value? Differently than Sraffian authors writing on the unpublished materials, I do think that for Sraffa the Marxian labour theory of value maintains a significant theoretical, explanatory, even quantitative role; a role that it is not visible at first sight and must be brought to light. I also think that we find here some points of contact with the NI reading of Marx. But I do not think that this means what some Marxian authors has inferred, that there is an unproblematic continuity between the two authors. Nor that the NI can be accepted as it stands as a reconstruction of Marxian thought. We are entering in a new continent which has still to be explored. The next sections will be devoted to sustain this position.

Though only implicitly, Sraffa seems to side with the macro view that the social product can be referred back to nothing else than labour, and that the latter has to be seen as the cause of the former. Of course, a statement like this is rather bold as it goes against the stream – somehow, it went also against my personal prejudices on these matters before visiting the Sraffa Archives. To be clear, it is very unlikely that we find a 'smoking gun' to support this conjecture. But we may advance a speculative reconstruction, supported by many traces dispersed in the unpublished material.

One of these traces is the fact that Sraffa appears to think that there are some non-formal reasons to insert explicitly labour in the third equations. One we already know from the notes against B. In those years Sraffa 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 that this is not an 'interpretation' and advances it as a sort of 'reconstruction' of Marx's argument. But may be there is another argument to put forward. It is mostly hidden 'behind the back' of the Sraffa's writing in the early 1940s: but it is however sufficiently in the open in a series of documents, the first significantly entitled *Use of the notion of surplus value*. The notes start from the 13th of November 1940, and begin with a quote from *Capital*, Volume 1, chapter 16[11]: it is clearly an outcome of the fact that Sraffa re-read again, and carefully, Capital Volume I when he was on the Isle of Man, in an internment camp, from the 4th of July until the 9th of October 1940. From that document it appears that Sraffa realized that only labour is the 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.

Sraffa's quote is building on Marx's reasoning in the second paragraph of chapter VII. Let us remind what Marx does there. He build a hypothetical comparison between two situations: the one where living labour is equal to necessary labour, and the other which assumes the prolongation of the social working day relative to that situation with prices unchanging. Since in the first situation there is no rate of profits, prices cannot but be proportional to labour-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:

> 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 (D3/12/46: 59).

What is interesting is not only that this Sraffa thinks that situations with prices proportional to labour-values are theoretically meaningful and the essential starting point for theorizing (against what Kurz strongly argued in 1998-2002, and insists in maintaining with Gehrke in 2006). The Italian economist is also amongst the very few who clearly perceive in Marx what Isaak I. Rubin called the 'method of comparison' in his *Essays on Marx's theory of value*. Nevertheless, in contrast with Rubin and also Croce, who preferred to speak of an 'elliptical' comparison), Sraffa understands that Marx's comparison is based *not on a reduction of wages*, on a setting with given 'methods of production' with known levels of inputs and outputs, and starting with the remuneration of labour exhausting the value of 'net product'. It is rather constructed around a counterfactual thought-experiment with a 'lengthening' of the social working day relative to the situation where living labour matches necessary labour. On the other hand, since Sraffa's object of analysis is a typically Ricardian one, he had to rephrase this comparison to make it adjusted to the issue of the simultaneous determination of prices and distribution. This meant to turn upside down Marx's contrast (as Kurz 1998 and 2002 rightly sees): that is, he had to "cut down the product", which is the same thing as shortening the working day relative to the actual situation. In the end Sraffa had to revert to the usual practice – namely, to begin his discourse when the process of production has ended. Living labour - which, for Marx, is intrinsically variable - is now just the direct labour expended in the period, and which is definitely dead in the commodity. This is in fact what we 'see' in the 'snapshot' depicted in *Production of Commodities by Means of Commodities*. At that point, of course, the distinction between labour-power and living labour 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.

11 "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. In the paper in Chiodi-Ditta I wrongly attributed it to chapter VII, where this Marx's argument appears for the first time.

The important point to be stressed is that the Sraffa of the *Use of the notion of surplus value* appears to grasp what others, including most Marxists, did not. Marx's main theoretical problem was first of all, and mainly, 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 labour as a variable amount. Whereas Croce and Rubin, in different ways, thought that the no-surplus situation in the comparison was fictional, Sraffa understood it was not at all imaginary. The two sides both represent significant capitalist situations, including the case where living labour equals necessary labour. We do not have here any contrast between a capitalist distortion of some 'natural' economy (Croce), or of a 'generalized' commodity exchange (Rubin). In the no-surplus situation the 'true' costs of the actual economy are revealed: this so-called hypothetical economy defines the 'necessary labour'; it also fixes those exchange ratios (labour-values) which for Marx are instrumental to explain the generation of the surplus, before the determination of (production) prices based on specific rules of distribution of the latter.

Inside the capitalist labour processes the expenditure of the living labour 'making up' the productive configuration is going on *after* the buying and selling of labour 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 immediate production as a 'contested terrain'. All this, of course, happens well before the production process comes to an end, and therefore *before* commodities are materialized, and thereafter exchanged on the market. This is, in my view, the ultimate foundation of bringing the 'new value' added in the period back to the 'living labor' which has been extracted from the living bearers of labour power: a point, by the way, which most Marxists consider unproblematical, and the same NI often reduces to a postulate.

After Sraffa's book, and after the debate of the 1970s, we now know that looking at capitalist production *post factum* cannot but make the Marx's labour theory of value (as an individual price theory) redundant. This conclusion does not apply if economic theory begins from the *constitution* of the data which are taken as givens by the surplus approach. It is intriguing that Sraffa, preparing his book, did in fact met exactly the argument which grounds the idea that national income, as the value added in the period, comes out from a production of commodities by means of commodities which has to pass through the prolongation of the working day. This is something which cannot be taken for granted if the distinction between labour power and living labour is taken seriously. Indeed, labour power is 'attached' to living human beings. Hence living labour, while being capital's labour after the buying and selling of the capacity to labour on the labour market, is (and cannot but be) at the same time workers' living labour, because it is *their* activity. Thus, (capitalist) production of commodities is *essentially* – and first of all - the *consumption of the bodies and minds of workers as bearers of labour power*, so that commodities may come out of commodities. If things are in this way, the (monetary) net product exists only as long as capital has won class struggle in production. The total social working day cannot be taken as given in price determination, as in Ricardo and 'Ricardian' approaches, without always reminding this fact. And, well, this *is* the labour theory of value.

Production of commodities by means of commodities ***and the rate of exploitation***

> This is obviously true, and one would leave it at that, if it were not for the tiresome objector, who relies on hypothetical deviations.
>
> Piero Sraffa, 1961 (D3/12/111, 140)

In *PoC* these arguments implicitly referring Sraffa to Marx are absent from sight. At the same time, it is also not by chance that Sraffa has to revert to the same procedure as Rubin and Croce, moving the wage and not the amount of labour spent. He starts from the 'simple' rule where prices are proportional to values (hence, 'simple prices'), with the wage, as a share of social income, equal to 1, and consequently the uniform 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 labour 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?

What is striking, and what Sraffian authors - even with all their differences on the path leading to the 1960 book do not seem to consider enough, is that all this notwithstanding, Sraffa clearly remained firmly convinced of a strong parallel between his conclusions and Marx's. This remained true also after the collapse of his Hypo, and also after the publication of the book. More than that, this continuity may be easily framed referring to the 'macro' identity of the value added in the period by workers over and above constant capital, on one side, and the living labour which is exhibited in money, on the other. Even more impressive to some readers may be the fact that in early 1960s we still find a continuing defence of the transformation procedure in *Capital*, Volume III[12]. This defence is found in Sraffa's answers to some commentators on his book who, one way or another, did deny the continuity between *PoC* and Marx. I refer here, first of all, to the "answer to Napoleoni". Claudio Napoleoni wrote in the second half of 1960 a review article which was published only in 1961, in *Giornale degli economisti*. Sraffa had read it in advance, being able (without Napoleoni knowing the fact) to see the different versions of it submitted to their common friend Raffaele Mattioli[13]. The title of the note, in Italian, is "Risposta a Napoleoni" (*Answer to Napoleoni*) and it is dated 31st December 1960. It has been published in Italian, with a few errors of transcription which I have corrected, in Ranchetti 2004):

> There is no more contradiction between the 1st and the 3rd volumes of *Capital* than between the 1st and the 3rd 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

12 About the following, the reader is referred to Bellofiore and Potier (1998), where the reception of Sraffa's book and his reaction is treated in detail, especially with reference to Marx. A partial English translation is due to be published in a volume edited by Rberto Ciccone et al..

13 Mattioli dispatched to Sraffa a copy of the letter where Claudio Napoleoni put on paper his first reactions to the proofs of *PoC* (SP-D 3/12/111/237-241). In the Sraffa archives we also find a carbon copy of Mattioli's answer to Napoleoni of the 11th of September 1960 (SP-D 3/12/111/246-48). Of Mattioli's answer to Napoleoni, Sraffa was, if not the true writer, certainly very well informed: in his *Pocket Diary* Sraffa wrote that he was at Mattioli's home both in the morning and in the afternoon of that same day, and then he noted of a Mattioli's letter to Napoleoni (cf. E33, Sept. Sat. 12). Thus, Mattioli's comments are very interesting, since they testify of an intellectual triangle which would be worthwhile to study in depth.

prices of others fall.

Sraffa goes on with a 'macro' reading of the problem:

> 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 3rd 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.

Then he concludes with a personal and positive note:

> 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[14].

Behind the reference to the Standard Commodity we see still the traces of the Value Hypothesis interpreted as a Statistical Hypothesis. The argument is, more or less, the one we already know. Marx's transformation, with aggregates measured in labor-values, is found 'approximately' correct. But now the 'approximation' can be remedied and made precise through Sraffa's own Standard Commodity. The

14 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. (D3/12/111/249-51)

Statistical Hypothesis looms even larger in the notes which Sraffa wrote on John Eaton's review article[15], which was published in 1960 in *Società*, a theoretical journal near the Italian Communist Party, and on which I already insisted in a 1998 paper on Sraffa, published a few years later (Bellofiore 2001). John Eaton was the pseudonym of Stephen Bodington, and his review is now available in an English translation in Bellino 2006):

> 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.

After the interpretation, Sraffa clarifies his thought, on the one side, agreeing with Marx ('this is obviously true'), but on the other intervening in the role of a 'tiresome objector':

> 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 ...)

This is an interesting twist in the argument, on which we'll have to come back. It is however, once again, sterilized as a criticism of Marx, once again referring to the Statistical Hypothesis:

> 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 <u>are</u> 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.

The tiresome objector, while concurs with Marx "in general", wants to make "exact" what was 'approximate, and this can be done thanks to the Standard Commodity':

> 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.
> -----------------------------------
> 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.?

15 Though Eaton in his paper had some hard remarks against the Standard Commodity, Sraffa's impression was positive. In a letter to Maurice Dobb dated 9th October 1960 (D3/12/111 118), Sraffa writes that he agrees with the conclusion that the Standard System "can be dispensed with", but he adds that if one wishes to follow Marx in his transformation and make it rigorous, without being satisfied with approximate outcomes and reaching instead exact results, the Standard Commodity is a "necessary adjunct" for the reasons which are reminded by the quotes following in the text of this paper. This train of thought was developed again in a note of a few weeks later, 29th October 1960 (D3/12/111 127-130), which looks like a draft of an answer to be published. The 2nd February 1961 Sraffa sent a letter to Stephen Bodington where he reiterates the point, but he concludes: "I doubt that it would be wise at the present stage to direct the discussion on to these lines." It seems that between the end of the 1960 and the beginnings of the 1961 Sraffa convinced himself that the most useful line was to exploit the 'critique of economic theory' side in his book, rather than put into the open the (not only Ricardian but also) Marxian origins of his argument.

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, openly stated in all this quotes? Among the very few authors considering this quotes (which, as reminded, I put into the debate already in 1998) are now Kurz and Salvadori (2009): but they sterilise the reference to the labour-value approach, and read it only thorugh the lenses of the Standard Commodity[16]. The problematic point here is that it is unclear why one fells the need to defend the Value Hypothesis (as a Statistical Hypothesis), once he himself had already reached a superior determination of prices, given the methods of production, based on the equality of the rate of profits and the conflictual distribution of the surplus. That defence would be understandable before the collapse of the model in August 1943. Why is it maintained later?

In my view, this point cannot be fully appreciated if one stays within the boundaries of the analytical object described in *PoC*. What is needed is to go 'behind' the given methods of production, beyond what may be called as their fetish-character. The 'photography'[17] of the inputs and the outputs 'after the harvest' must be recognized as just the last instantaneous picture of a 'movie', so that the 'productive configuration' has a 'history'. In other words, one has to go back to the process of the 'constitution' of the 'givens' in Sraffa's book. And to understand how this can be done, the 'constitution' of the book itself in the many decades necessary to write it is certainly not redundant.

What's for sure is that, if one has in mind Sraffa's documents about the *Use of the Notion of Surplus Value*, the 'normalizations' in § 10 and § 12 of the 1960 book take a different, deeper meaning. In § 12 the national money income, which is nothing but Marx's monetary 'value added' (under the hypothesis that all workers are productive) is taken as the standard of prices. In § 10 the direct labour of the society, which is nothing but the objectification of living labour, is also set equal to 1. Putting arbitrarily

16 In this paper by Kurz and Salvadori, there is no more any reference to his 1998-2002 papers we quoted (the same happens in his paper with Gehrke). There is also no reference to the papers by De Vivo and Gilibert we quoted (the same happens in the 2006 paper with Gehrke). In the paper I a commenting, Kurz and Salvadori insist that "Steedman's interpretation is *fully* corroborated by Sraffa's hitherto unpublished papers." (p. 32). But the following phrase has to implicitly qualify this statement and have to say that it actually fully applies *only* to the 1927-31: "The evidence laid out *especially* from the first period of his reconstructive and interpretative work documents in some detail Sraffa's critical attitude towards the labour theory of value and his advicacy of the concept of physical real costs". Of course the authors realize also that this qualification is not enough, so the following phrase must be a further qualification: "*However*, when towards the end of the first period Srafa began to discuss system with a surplus and worker's participation in the sharing out of the surplus, he was willing to include quantities of labour among the objective data" etc., which actually forget the role of the labour-theory of value in a meaning different than the vulgata at least in Sraffa's 1940-43 period. Then they have to recognize also the resurrection of the Hypo, and even of the Value Hypothesis as a Statistical Hypothesis in the early 1960s, and interpreted it exclusively in terms of the artcifical cnstruction of the Standard Commodity. They fail to acknowledge that Sraffa still in the early 1960s built on this a discourse on exploitation as a distribution of labour magnitudes, and a redefinition of the rate of surplus value. Kurz's and my reading of the Sraffa papers is now very near, admittedly except the trully essential point of the meaning and role of Sraffa's labour theory of value in Sraffa's thought in general and in PoC in particular.

17 About *Production of Commodities*, there is an interesting answer by Sraffa preserved in his correspondence. A student of the University of Saarbrücken, Rüdiger Soltwedel, preparing a PhD thesis on "Sraffa's *Production of Commodities by Means of Commodities*" wrote to him on 28th February 1968 to get some advices (SP-C294/1-2). Sraffa answers him on 1st March (SP-C 294/2): "As regards your own interpretation, I must say frankly that you have gone astray the moment you speak of "equilibrium" or of "elasticity of factor supply": all the quantities considered are what can be observed by taking a photograph, there are no rates of change, etc. This point of view was that of the classical economists (e. g. Ricardo) whereas supply and demand curves were introduced in the middle of the 19th century. Economists are now obsessed with them and cannot think without them. My chapter V, which gives you such a headache, could be understood as an attempt to solve a problem set by Ricardo, and which I described in my Introduction (sections IV and V) of vol. I of the *Works* of Ricardo, 1951".

the 'monetary expression of (socially necessary) labour time' (in the following shortened as MELT) also equal to 1, this is exactly the 'postulate' of the NI proposed by Duménil and Foley we referred in the first part of the paper. Dario Preti, a non-academic Italian researcher, rightly insisted in unpublished and published writings since the early 1990s that this in a sense is nothing but the labour theory of value in disguise (for a more recent synthesis, cfr. Preti 2002). It is what another Italian scholar, Stefano Perri, labels the 'identity of the new labour—value'. We saw that Sraffa stumbled upon an argument by Marx to justify the idea that behind the new 'value added' exhibited in money there is nothing but the prolongation of 'living labor' over 'necessary labour'. It is the 'method of comparison' used by Marx in *Capital*, Volume I, chapter 7. And it is the argument that since the 1980s I have put forward as the true foundation of Marx's 'macro-monetary' labour theory of value, grounding the NI's postulate. After his notes about the *Use of the notion of surplus value* we cannot exclude that Sraffa had something like this at the back of his mind when finishing his book, because it was so crucial in the development of his own thinking. In fact, in the 1940 the research on his book was reinvigorated and started anew more or less just after he re-read *Capital*, Volume I, at the Isle of Man, and those notes play a pivotal role in the new reflection.

Of course, if one gives this deeper meaning to the normalizations in §10 and §12 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 (monetary) net product is, immediately, an expression of nothing but a quantity of labour. Not, however, as the labour 'contained' in a given real commodity basket, rather as the labour 'commanded' by the money wage as a variable share. This consequence, as I have just showed, was fully appreciated by Sraffa himself. He quite consciously, in his dialogue with Eaton, goes as far as to re-read his scheme as a novel characterization of what he insisted in calling the 'rate of exploitation', seeing this latter as a division of the social working day:

> 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 commds. 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).

According to Sraffa, although Marx's 'approximation' is justified "in general" and "in fact", it cannot be accepted in pure theory. It is understandable that Sraffa's apparent rejection of the 'value' rate of profits in favour of the 'price' rate of profits may induce Sraffian authors to the conclusion that this means that he thought the 'labour theory of value' to be flawed. But things are more complicated, since I have shown that the 'labour theory of value' as a macro cause of the national income produced is clearly there, and interpreted as such by the same author of *PoC*.

Matching again the problematic of the NI, for Sraffa the rate of surplus value, interpreted in the traditional way, becomes ill defined. If there is 'freedom' on how to spend the money wage bill, the labour contained in it is indeterminate. It changes with the commodities bought by workers. Not so, however, if the rate of surplus value is interpreted 'at prices of production' – namely, as the labor commanded by the (money) wage. It is interesting as a further confirmation of this interpretative suggestion that, in the notes on Eaton, Sraffa offered his own 'Marxist' reading of the allusion in § 44 of *PoC* 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, and once again the rate of exploitation and the approximate nature of Marx's transformation are at the forefront:

> 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.[18]
> (D3/12/111: 139)

Sraffa as the true Marxist?

> [Sraffa] scowls only to compliments, and is happy to receive criticisms
>
> Raffaele Mattioli to Claudio Napoleoni, 1960

Some of these conclusions, on which I'll come back in the next section with a more personal accent, and which were already anticipated in papers of 1997 and 1998 in English (but dating back 1994 in Italian), are parallel and/or have been taken up in the last few years by other authors, such as Giorgio Gattei with Guglielmo Gozzi (2010) and Stefano Perri (in the various papers quoted below), in Italy, and Scott Carter (2007, 2009, 2010), in the US. We all agree that it is embedded in Sraffa's system an implicit reference to Marxian value theory where the Italian economist posits an identity between the new value which has been added to constant capital by living labour and the price of the net product. This point, actually was stated in published and unpublished material of the early 1990s of the non-academic researcher Dario Preti (cfr. especially his Preti 2002 which summarises his findings), who was probably the first to hint at it. This identity has then a substantial, fundamental economic meaning and cannot be reduced just to a convenient mathematical normalization. We all see here a point of contact between *PoC* and the NI reading of Marx's law of value. And then we all see a stronger continuity between Marx and Sraffa, even on the controversial issue of the role of the labour theory of value in his system, than Sraffian authors customarily allow. That identity is a kind of 'conservation law' of value in terms of the net product of the economy, with the value of labour power redefined as a quota of the money net product.

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18 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 sopravalore
> $$\frac{1-w}{w} = \frac{1}{w} - 1)$$
> 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.'

After Bellofiore (2001) and Bellofiore and Potier (1998), I came back to these topics in Bellofiore (2008).

There are however important differences between my reading and those proposed by these other authors. All of them (with the exception, may be, of Preti, whose original and constantly evolving thought would require a discourse apart) seem to identify the 'law of value' (the identity just recalled) and the 'theory of value': I rather think that the law of value has to be grounded, and that the grounding is precisely the theory of value. I have argued in this paper that the 'labour theory of value' – an expression which is a misnomer, since the 'value theory of labour' would be a much better expression (the reference here is to Diane Elson's essay and edited book (Elson 1979); and 'monetary value theory of labour' would actually be the best and adequately fits Marx's approach - has to do with the 'constitution' of the monetary magnitudes. And this refers essentially to the 'method of comparison', which requires the variability of the living labour from workers, whose extraction is problematic. These authors seem to confuse, 'living labour' with 'direct labour', that is with living labour's objectification: this innocent move erases the *differentia specifica* of Marx's value theory, and places it on the same footing of the Ricardian 'productive configuration' which is common to *PoC* and the NI. That is why the redundancy criticism is still valid. On the contrary, these authors are keen to insist that Sraffa is an 'exploitation profit theorist' in the line of Ricardo, which is true; a Ricardo with the labour theory of value as an essential, non-superfluous ingredient, which is doubtful.

According to this Marxist line of thinking I am sceptical about (more convincing were the essays collected in Gattei 2002), the reinstatement of the analytical program of the Classical economists (of whom Marx would be the culmination) including a labour theory of value is none other than Sraffa himselfR[19]. Against the Steedman critique, Sraffa is resurrected as (conjecturally) the 'true' Marxist, whatever he could have thought. The transformation problem - Gattei and Gozzi insist- simply disappears. On this proposition I concur: but the line of reasoning is very different. In my approach, once that it is explained – thanks to the theory of value as a theory of of the formation of economic magnitudes - why and how the net product is nothing but the monetary exhibition of (socially necessary) labour time, any price rule would just redistribute a labour amount, *without* any need to maintain an equality between the labour equivalent of gross profits and surplus labour as the substance of surplus value, and between the labour-equivalent of the wage bill and the necessary labour as the substance of variable capital. If there is a divergence between these variables, the problem is to understand its meaning, not to water it down. For them (as in Pasinetti) the starting point is a case of a 'pure' labour economy where the labour theory of value holds (a 'hypotethical' reference, which in my view has no import in a Marxian approach, and is actually conflicting with it). Then they show how Sraffa could have generalized that case in a coherent way to consider the case of production with labour and produced means of production through the adoption of the identity of the new value with direct labour (i.e., thanks to the normalization in §10 and §12). Following this suggestion, as in the NI, Marx's equalities rewritten as referring to the net product are maintained. It is clear then that the transformation replicates Marx's results, and this author conclude that 'gross profits are surplus labour'. In this way the historical immanence and the theoretical significance of Marx's notion of abstract labour - its break with both Smith's labour commanded and Ricardo's difficulty of production - are simply jettisoned away. And as in the NI the role of the 'real' subsistence wage is downplayed.

The question if there is something important to be learned from the tension between Sraffa, the NI and Marx, is simply not asked: the implicit answer being that it is a 'philosophical' issue, not an 'analytic' one: as if in Marx the two aspects could ever be dissociated. A very similar line of attack is taken by Stefano Perri. In a first period, until 1997-8 (see Perri 1991, 1996, 1997), this author tried to articulate Foley's NI together with Pasinetti's analytical structure of vertically integrated sectors. He argued, against Roberto Marchionatti (1993), that it was possible to define mathematically exploitation in a Sraffa-based model. This however is clearly insufficient to rescue the significance of Marxian labour-value theory, or even to answer properly Marchionatti's criticism. Andrea Salanti (1990) was the one

19 Representative of the temptation to see solutions where there are in fact questions to be answered is Passarella 2009, which is a survey of the NI plus Sraffa interpretation.

who actually started this stream, and he always correctly insisted that exploitation can be neither confirmed or rejected by formal arguments. But it is not enough to say that, then, the matter is just about metaphysical beliefs. After the opening of the Archives - also building on some of my contributions on the Sraffa papers (Bellofiore 1998, 2001), as well as on my interpretation of the transformation as based on a truncated method of comparison from *Capital*, Volume 1, to *Capital*, Volume 3 (Bellofiore 2002: but a preliminary version was on-line since 1997, and the argument was already in Italian in Bellofiore 1996a) - Perri (1999, 2003) undertook a much more promising perspective, and developed also analytically a view on the Marxian labour theory of value as based on a 'counterfactual' argument.

In more recent years, Perri looked at the relation in Sraffa between the profit rate and the proportional wage (Perri 2010a). The wage rate is described in terms of quantity of values and not as a 'subsistence' real wage. It seems to me, however, that exactly the latter definition is essential to the counterfactual comparison in the way Marx employs it – namely, in a constitutive and genetical manner. That is why I see here, more than a contradiction, a true difficulty which asks for a true original theoretical development, going beyond Sraffa and NI (see next section). In his writings Perri well sees that the price normalization in § 10 and 12 is not arbitrary, because it is only thanks to that equalization that the wage rate in the 'micro' analysis of prices is made equal to the 'macro' ratio of aggregated wages to the net product. But again, the question if something relevant, or even essential, in Marx is lost, is just not asked. Nor is considered the possibility that in a Marxian approach would be rather preferable to find a way to go from the 'macro' to the 'micro', exactly starting from a real wage given for all the labour force is employed.

Perri seems to follow Sraffa in trying to look at the relation between the wage rate and the rate of profits in objective, even 'material', terms thanks to the Standard System and the Standard Commodity. In this author's interpretation, technical change (adopted in view to maintain or increase the industrial reserve army) gives way to a rise in the composition of capital, which leads to a necessary fall of the maximum rate of profits (Perri 2010b). Sooner or later, in the dynamical process of accumulation, the actual rate of profits is bound to fall too. Perri acknowledges that Sraffa did not believe that this would apply in a long period analysis since technical change will have a different quality, going beyond a given technical knowledge and embodying innovations. Capital composition may not rise, and hence the counter-tendency may well be stronger than the tendency. Although he is not a follower of that tendency, Perri's move here seems to be similar to the one very often adopted by the authors in the Temporal Single System tradition: look at the 'empirical' observations to see if Marx's, or Sraffa's, or anybody's else guesses were right. He is convinced that in the last 50 years the ratio output/fixed capital has constantly decreased in constant prices, but he recognizes that this may not be significant for the really relevant magnitudes, because they are not the 'physical' ones but the 'value' ones. Once again, the escape is look at the data: Perri claims that Marx's predictions work for the US, though with important phases in which they do not.

Once again, it is apparent the temptation to see in Sraffa's positions - as they can be reconstructed from the unpublished writings, and from there gaining a new point of view about *PoC* - a platform from which to rehabilitate Marx's most controversial positions. On my side, I find epistemologically unconvincing to sustain a theory thanks to (by the way, uncertain and contestable) sets of data which allegedly would 'confirm' a theoretical proposition. The more so if, as in Perri, the falling rate of profits is used somehow to understand the current global crisis, with an argument which goes back to the 1940s, which has to admit powerful counterdencies, and which refers not to the global economy but to a single (though important) economy. Moreover, and crucially, here the question at hand is not if there is an empirical fall of the rate of profits, but if that fall is a 'law', that is if it is 'necessary'. And it does not appear to be so in the same Perri's argument.

Scott Carter's writings on the Sraffa papers (listed above) have the invaluable merit to consider also, if not mainly, the development of the Italian economist's reasoning also in the third and last phase of his preparation of *PoC*, after 1955, a period on which I have not yet seen many contributions. Convincingly, Carter reads the normalization between the value added by living labour and the price of the net product as I have done at the beginning of this paper. It is an identity posed at the 'macro' level between the labour 'contained' in commodities and labour 'commanded' by their prices. Unfortunately, as the other Marxists I considered in this Section, this seems to exhaust for him the theory of value, and this is too weak an answer to the Sraffa-based criticisms coming from authors like Steedman or Kurz.

Carter meets a difficulty that also Perri encounters. For Carter, as for Sraffa, it is important, that as the quantity of labour commanded by workers through their wages decreases, the quantity of the labour commanded by capital through profits increases, and that this happens linearly. This requires that the wage share be measured in the Standard Commodity (except when w = 0). Carter's is explicit in understanding the Standard Commodity as the same thing as Marx's 'gold as money', assumed to be an 'invariable standard of value'. If the economic system is expressed in Standard proportions the process of value transfers is such that when wages command less (more) labour extracted from workers, profits command more (less) labour in the equivalent amount.

The problem has to do with the fact that, as Kurz correctly argues (2002: 186, 188), the Standard Commodity cannot be considered as a surrogate for the labour theory of value (which actually, Marx insists, needs a *non* invariable standard of value). It only gives transparency to the mathematical properties of the system and makes visible what is hidden. Thus it is true that it is possible to determine the maximum rate of profits, to have evidence of the rate of profits as a non-price phenomenon, and to make linear the wage-profit relationship: but only within a *given* set of methods of production. This 'synchronic' version certainly is not a Marxian, may be not even a Ricardian one (though it is partially of Ricardian heritage). This is shown by the fact that 'diachronically', i.e. when methods of production change, the Standard Commodity is different. This fictional entity, of course, cannot have nothing to do with Marx's money. This reveals a difficulty in Perri too[20] because it reveals that one cannot analyze the dynamics of accumulation assuming that the technical change increasing labour productivity raises the capital output ratio, and that this entails a decrease in the maximum rate of profits. In fact, the 'invariable measure of value' is for Ricardo the same thing as his own labour theory of value, but this requires that both the synchronic and diachronic aspects of it are maintained. Once they are divorced, and only the former can be retained in the theoretical picture, the Standard Commodity tells nothing more about Sraffa's adherence or not to the labour theory of value than can be said from the normalization adopted in §10 and §12. Insetad, it may be hinted that Marxian money as a non-invariable measure of value is illuminating for the distortion and dissimulation that it originates.

Sraffa, the New Interpretation and Marx

> 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

What has been proposed here is a conjectural history trying to make sense of some of the notes

20 The following was observed by Roberto Ciccone at a conference in Siena where Perri presented the paper on the falling rate of profits (Perri 2010).

relating to Marx which we find dispersed in the Sraffa Archives at the Wren Library. It is meant to raise questions and open debate, 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 *PoC* Sraffa tried to build bridges between his own scheme and Marx's labour-theory-of-value-based argument. Looking back to the path he followed to reach his conclusions, and taking stock of the debates within the Marxian tradition since the 1970s and 1980s, we registered some limited but relevant overlapping with the NI. In this last Section of the paper, and in a very preliminary fashion, I give emphasis to the tensions in this overlapping and propose a personal way to move forward. We have to explore not only the similarities but also the dissonances between Sraffa and the NI - and between both and Marx. And to ask ourselves if this dissonances should not be resolved going beyond the interpretation of Marx proposed by those tendencies, in the open sea of a wider reconstruction21.

The overlapping between *PoC* and NI can be summarized in this way. Social income, as a whole, must be traced back to nothing but labor. This is implied by Sraffa's implicit but clear reference of the 'net product' at prices of production as been nothing but the total direct labor, which in its turn is the objectified result of living labor as activity. Variable and constant capital are advanced in money, as Sraffa himself stresses in his notes againt B. The rate of surplus value is therefore to be understood as a share of social income, whatever the ruling system of exchange ratios. The rate of surplus value with a competitive equilibrium – interpreted in the 'statical' sense of the uniformity of the the rate of profits - must then be accounted in terms of prices of production rather than in 'labour-values' (in contemporary Marxian terminology, 'simple prices'). What matters in defining 'exploitation' in a labour-value perspective is not the labour necessary to produce the subsistence goods that workers buy, an amount which changes when workers modify the composition of their expenditure, but how much of (social) labour (producing national income in money) is 'commanded', or bought, by the money wage:

I have already put forward that some qualifications are needed. Let us consider them in more detail, starting with the identity between the 'net product' at prices and direct labor. In the NI the 'postulate' seeing in national income nothing but the 'exhibition' of total living labor is mediated by the MELT, whatever the price system. This notion is completely absent in Sraffa, i.e. it is not an object of explicit theorizing. As a consequence, money may appear as foreign to his theoretical picture, and intervening quite abruptly and from the outside in §44. This is incompatible with Marx, if we interpret Sraffa's 1960 model (a word, by the way, that he fiercely disliked) as the 'core' from which economic theorizing has to start[22]. It is not if we see Sraffa's 'real' economic system as a snapshot of a specific moment in the monetary sequence of a capitalist production economy: 'after the harvest' and 'before the market' (after production and before final exchange in the commodity market). Money as capital (i.e., as finance to prodcution) and living labor (i.e., exploitation[23] interpreted as the conflict-laden 'use' of the labour power of the living bearers of the capacity of labour, from which only exploitation as surplus labour may originate) are here implicit. A correct interpretation of Sraffa's results and his relationship to Marx requires to make finance to production and class struggle in capitalist labour process explicit, and to show the 'movie' behind the snapshot.

The NI benefited from a deeper understanding of Marx's thought (especially about its monetary aspects) than was at hand when Sraffa undertook his inquiry, and than Sraffians authors seem to

21 In the following I will implicitly refer to arguments more fully developed elsewhere – like in BELLOFIORE (2004, 2005).

22 Marx's is, like Schumpeter's or Keynes's, a "monetary analysis", not a "real analysis": money must be there already in the foundational building block of the theoretical edifice, and it cannot be added after the price-distribution problem be resolved. This, by the way, is Marx's originality in the history of economic thought: his is the only monetary value theory, and his is the most consequent critique of the non-monetary value theories (as Ricardian or Walrasian) as well of the non-value monetary approaches: a point which has been clearly pointed out by German scholars like Hans Georg Backhaus

23 On this see Bellofiore-Finelli 1998.

dominate. The divergence can be measured if we make the intellectual experiment of substituting the beginning of *PoC* to the beginning of *Capital*. The notions of 'value' and of 'price' cannot be even defined in Marx without the categories of 'form of value' and of the 'universal equivalent'. We find no parallel in Sraffa, or the Sraffians. For the NI, as for Marx, the total (direct) labour expended in society in a period is social, but the labour spent in the individual processes is immediately private: it must 'become' social. This can only be achieved through money. Sraffa takes the sociality of direct labor time for granted: hence, no need of the metamorphosis (Marx speaks not so metaphorically of a 'transubstantion') into the universal equivalent. The production process has ended: hence, no need to make explicit finance, nor any need to refer to living labour as an activity. We 'see' only the methods of production (input and output as givens), and we can 'observe' the results of the distributive conflict (driving price determination).

The superiority of the NI on the monetary aspects of Marx is matched however by some difficulties. The NI does not explain why only (living) labour is the source of (new) value. The NI also underestimates the fact that the universal equivalent as predicated by Marx is inextricably linked to money as a commodity (so that the concrete labor producing gold as money is the only immediately social labor). Moreover, Marx's original argument referred the whole value to past and present labor contained. As a consequence, in the NI the identity between national income as the new value produced in the period and living labour through the MELT is assumed as a 'postulate' rather than being 'justified' theoretically (and of course the way it is grounded have consequences on the way the theory proceeds). Analogously, the MELT is not assumed as given but as an ex post magnitude.

There is here some superiority of Sraffa towards the NI, in that the former saw a difficulty where the latter does not (the same is true also for the Marxists I criticized in the previous Section, and indeed to most Marxian authors). I have showed that Sraffa in the 1920s sees that the reference of value to labour is problematic: it needs to be 'grounded'. Sraffa in the 1940s somehow understands that the constitution of the 'productive configuration' and the emergence of the 'surplus' is explained by Marx through a counterfactual comparison based on the prolongation of living labour over necessary labour: implicitly this means that the argument is a kind of 'method of comparison'. Sraffa's advantage over those few authors who saw that method at work in Marx was that he realized that Marx'own argument was intrinsically in terms of the variability of the working time, and not in terms of a minus wage (as he himself eventually put it in *PoC*). I advance the speculation that it is in the unpublished notes of the 1940s that we can understand why the Sraffa of the early 1960s insisted in referring the money net product at prices back to living labour. He continued to talk of 'exploitation' in terms of labour. And he even advanced no hard criticism of Marx's transformation procedure, but found it approximately correct.

To understand these points is however to understand as well that the 'Ricardian' setting of the 1960s book must be inserted in a wider 'Marxian' outlook, rather than the other way round as the Sraffians do. The above is probably to be related to the issue of the 'invariable standard of value'. After chapter 4, most of the game in Sraffa is about the Standard Commodity and the Standard System. Nothing similar in the NI. *Et pour cause*. The Ricardian quest for an invariable standard had an interest for Marx only as an anticipation of the category of an 'intrinsic' or 'absolute' value. As he writes in *Theories of Surplus Value* discussing Bailey, "[t]he problem of an 'invariable measure of value' was simply a spurious name for the quest for the concept, the nature, of *value* itself, the definition of which could not be another value, and consequently could not be subject to variations as value. This was *labour-time, social labour*, as it presents itself specifically in commodity production." (MECW 32: 322). The point about intrinsic or absolute value is secured at the macro level by the argument in *Capital* I, chapter 7, grounding the 'postulate', and it reappears in Sraffa in § 10 and in § 12. But Marx also wrote in the same manuscripts that in the sixth section of Ricardo's *Principles* there is "nothing important" (MECW 31: 426). Sraffa instead thought that the Standard Commodity was instrumental to a better understanding of the relationship between prices and distribution.

Even more tricky the second convergence between Sraffa and the NI on the wage and the rate of surplus value. Sraffa rose objections against, and the NI usually rejects, a view of the wage as a 'bundle' of commodities. They are both in favour of a definition of the wage as a 'share' in a given new value. Contrary to a widespread opinion, the second view is not compelled neither by the fact that the wage is advanced in money nor by the fact that workers as consumers may choose different goods, thus making 'necessary labour' (as labour 'contained') an indeterminate magnitude, because - as I shall argue later on - this is not true for the working class as a whole. As long as it is supposed - as very often Marx does - that the 'price' of labour power is equal to its 'value'[24], the fact that variable capital is advanced in money means only that the basket of commodities constituting the given subsistence has to be re-evaluated at prices of production (rather than at 'simple prices') in the simultaneous determination of the latter. The NI leans towards a different understanding of 'necessary labour', as the labour 'commanded' by, rather than the labour 'contained' in, the commodities bought by workers according to some historical-moral-conflictual subsistence. The NI, as well as other authors like Fred Moseley, propose this as a novel reading of *Capital*. Sraffa sees it as a revision relative to Marx: and rightly so. The problematic point in the NI is that once this redefinition is accepted most of Marx's conclusion becomes tautologies, so that the NI risks to reduce itself to a postulate plus tautologies.

Indeed, following this path the same sequence of the three Volumes of *Capital* becomes doubtful (and the method of comparison meaningless, since the latter appears to require a given subsistence real wage). This explains why the most consequent NI authors had lately taken conscience that in their perspective it is mysterious why Marx framed his picture of exploitation in two steps (see Foley 2009: 31). Under what they call 'the commodity law of exchange', i.e. with labour-values or simple prices as the price-rule, the labour contained in the commodities workers consume is equal to the labour time equivalent of the wage, and the surplus value over variable capital is proportional to surplus labour time over necessary labour time (measured in terms of labour contained in the real wage). Under what they call 'the capitalist law of exchange' realized money profits (surplus value) comes from exploitation, with the labour time equivalent of the value of labour power measured in terms of the labour commanded by the money wage. This gives rise to a discrepancy between two different ratios accounting for exploitation: this is the usual criticism to Marx, shared by Sraffian authors, and which actually is accepted by the NI, whose way out is the redefinition of 'necessary' labour. But what, then, about Volume I? And what about the image of the division of the social working day as coming out for Marx, first and foremost, from the prolongation of the working day as an outcome of class struggle in production, and only secondarily – secondarily in a logical sense – from the role of pricing and allocation of the surplus (value)? What comes out from this argument seems to boil down just to this: once postulated that the new value produced exhibits nothing but labour, a surplus value is there because the labour-equivalent in money appropriated through the wage is less than the 'value productivity' of the workers. This is a Smithian deduction theory of profits, turned into a Ricardian minus-wage explanation, thanks to the articulation of the notions of labour commanded and labour contained. It leaves unresolved the key point about the retroduction of value to labour.

I think there is overwhelming textual evidence that Marx in *Capital*, Volume I, took the real wage as a given, fixed historically and conflictually. But if one reads carefully that book, one sees that it is a kind of 'macrosocial' foundation of 'microeconomic' behaviour. The crucial exchange rate is here the ratio between the value added in the period and the value of labour power of all the workers employed. The given wage should be not understood individually, but referring to the quantity and quality of the means of subsistence bought by the working class as a whole. Assuming the same social working day, the same employment, and the same subsistence, the same 'basket' which in Volume 1 was evaluated at 'labour-values', in Volume 3 has to be evaluated at 'prices of production'. That is why both notions of

24 I follow here the meaning of these categories in *Capital*, Volume I.

'necessary labour' should be maintained if one wants to understand the dissimulation inherent in the transformation from values to prices.

Let us see how.

To develop this line of interpretation (for which see Bellofiore 2004, 2005) it is necessary to shift the focus from money as a universal equivalent to the finance of production by banks[25]. Gold as money is a universal equivalent allowing the 'incarnation' of the 'ghost' of value into money as a 'chrysalis': in this way, it socially *post*-validates the commodities. The banking sector, granting credit ex nihilo to the firm sector to pay the wage bill to the entire labour force to be employed, *ante*-validates the (expected and uncertain) extraction of living labour originating the mass of commodities as 'ideal' money, and henceforth its (expected and uncertain) translation into 'real' money on the final commodity market. Again, this (problematic) transition from one form to another in which value finds existence, together with its (problematic) generation, is what the Marxian labour theory of value is all about. And exactly this cannot but be evacuated in a Ricardian setting.

Because they get bank finance before producing and selling commodities, firms are free to decide where to assign and exploit the workers they have the right to dispose of. Subject to the constraints of effective demand, capitalists as a class are able to determine not only the level but also the composition of output before entering the commodity market. The surplus commodity product and the surplus value are nothing but the result of a surplus labour over and above the necessary labour contained in wage goods. The commodity output emerging from production may therefore be split in two. On the one hand there are the wage goods, or the commodities that the aggregate of the industrial capitalists actually will make 'available' to workers on the commodity market. On the other hand, there are all the other commodities 'not available' to workers, let us call them the profit goods (including capital goods and luxury goods). Such profit goods are exchanged among firms[26]. What is relevant is that the aggregate real consumption of the workers is *de facto* decided by the capitalist class (banks and firms together). Marx, however, decided to assume in most of his analysis that firms granted to workers the 'subsistence' real wage-bundle as a social given - even though he knew quite well of the historical reality of capitalists attempting to squeeze the wage below that level. Though these conclusions on money and the wage are very different from what is customarily stressed by the NI, where money enters the picture as the general equivalent on the commodity market and where the real wage is not taken as given before circulation, they are not incompatible with the ex-post accounting identities on which that approach builds[27].

25 This can be done integrating into Marxian theory some results coming from the French-Italian circuitist version of the monetary theory of production. A complete picture of the theory of the monetary circuit is presented by Graziani (1994, 2004), without ever mentioning Marx. Note however that according to Graziani the Wicksell-Schumpeter-Keynes tradition is an "underground Marxist stream" (Graziani 1979), which - though not explicitly endorsing Marx's own value and exploitation theory - nevertheless followed his general approach to the capitalist process as a cycle of money capital. Graziani and other authors (including myself, and for a while Marcello Messori) saw in the circuit approach the possibility to rehabilitate the labour theory of value as a monetary labour theory of value: where 'macro' means class-based, and 'monetary' means initial finance by banks before meaning a means of exchange (on the final commodity or stock markets) or a store of value.

26 Note that capital goods remains firmly into the firm sector even if their formal ownership is nominally transferred to workers through the sale of some financial instrument on the financial market. As a consequence, on this view, the presence of savings from the working class does not affect the computation of the rate of exploitation (this is a consequence easily drawn from Graziani 1994, 2004). The point may be clarified in this way. Workers may spend money only after they have been lucky enough to sell their labour power and have obtained a money wage on the labour market, and only after they have objectified their living labour in production. On the commodity market, their only option is whether to spend the whole or just a part of their money income. If they save, this is merely a postponement of consumption; in any case, while the individual saver may have the chance to succeed in shaping the time-profile of her or his own consumption, the working class is constrained by the autonomous choices of the firm sector about the real composition of the net product.

27 The careful reader recognises here that this reconstruction of Marx makes him very near on key point to Keynes's

Let us see how this discourse on the generation of the new value added and on the macro-social determination of class distribution affects the results of the transformation. It is well known that Volume 3 is unfinished business: Marx did not pursue far enough the 'transformation'. The thing to be understood is that the definition of the rate of surplus value at prices of production does not cancel but must be added to its definition at labour-values. I recaleed that the objection coming from Sraffa and the NI alike is that the labour contained in the wage is indeterminate because it changes with any change in the commodities bought by workers. At this point of our argument, however, we understand the fallacy in this criticism: it applies at the individual level, but not for the class as a whole. 'Industrial capital', thanks to the advance of money capital to acquire labour power, allows capital to command living labour, and to extract a certain amount of living labour. Its objectification is a given both for Sraffa and the NI: and I agree with that. But also the wage bundle of the working class is known: either because we assume, as in Marx, that the wage is at the subsistence level; or because it is fixed by the autonomous demand by firms. Those two quantities - total direct labour expended and the real wage for the working class - cannot change, whatever the price system is. Exploitation as the use of labour power has 'added up' to the necessary labour congealed in the wage bundle a surplus labour, which is a function of class struggle in production. This surplus labour is monetarily exhibited as (potential, and then actualized) surplus value[28]. From this 'macro' perspective, the accurate measure of the class relation between capitalists and workers cannot but be given by the rate of surplus value expressed in terms of labour-values. What is caused by prices of production diverging from labour-values is merely a duplication of the value of the labour power: a fetishistic duplication concealing of the real relation emerging from production.

We have a value of labour power as the labour-content of the real wage, and a value of labour power as the labour-equivalent of the money wage. Both concepts are relative to the actual setting which is the object of analysis. The labour-content value of labour power expresses the class balance of power between capital and labour on the production process and on the buying and selling of labour power. The labour-equivalent value of labour power shows how this is exhibited through the money dimension and within inter-industry ('static') competition. In the latter, if the branche(s) of production selling wage goods get an higher (lower) share of direct labour than the one actually expended, the branche(s) of production selling profit goods get a lower (higher) share of direct labour than the one actually expended. The gross profit/wage bill ratio translated in labour 'commanded' terms through the MELT may thus be lower (higher) than the rate of surplus value as defined in labour-values. Nevertheless, from the macro point of view nothing has happened: workers still get back the same share of living labour congealed in the wage goods they consume; and total capital still appropriates the same share of living labour congealed in profit goods.

Summing up. The rate of surplus value at 'labour-values' accurately depicts the macro-social outcome of the struggle over labour time between classes, and hence the division between the total living labour

Treatise on Money, especially on the points where that book clashed with Hayek. Sraffa was involved in the debate, siding with Keynes. As Graziani (1996: 296-7) wrote, Sraffa, in contrast with Heyek, asserted that if producers succeed in producing a given set of commodities, this is an 'order with no return': in a monetary market economy capitalist producers command monetary flows and can dispose of productive resources; they are then powerful enough to determine the quantities produced of each commodity, beyond any alleged consumers' sovereignty. As a consequence, Graziani advances the conjecture that this is why Sraffa's quantities in *PoC* are considered as given magnitudes. This cannot be interpreted, like Frank Hahn does, as Sraffa being an halved Marshall, and it can be seen as a strong line of continuity between the 1960 book and his criticisms of Marshall and Hayek. The critique of Marshall and the debate with Hayek "turn out to be parts of a wider research project aimed at building an alternative vision of the entire economic process" (*idem*: 298). This may be too much as an interpretation, but -exactly like the Marx-Sraffa conjectures coming from the unpublished material - may be a promising base camp to beginr a reconstruction, going with Sraffa beyond Sraffa (Bellofiore 1996b).

28 In most of the three volumes of *Capital*, Marx explicitly assumes that all the value produced is sold on the market: that is, circulation actualizes potential value and potential surplus value.

expended and the amount of that labour which has to be given back to the working class. Prices of production redistribute the new value added among individual capitals in such a way that the producers of wage-goods may command a higher or lower labour amount than actually spent by the labour-power they employed. That is why the ratio of the gross money profits over the money wage rate translated thanks to the MELT into labour magnitudes gives a different quantitative measure than the usual rate of surplus value. As some authors say, 'paid labour' diverge from 'necessary labour'. But here there is no difficulty at all (though this was not realized by Marx). It is just a deceptive form of appearance in circulation, obscuring that the only source of the value added (and then of surplus value) is living labour of human beings in production.

Conclusion

> The significance of the equations is simply this: that if a man fell from the moon on the earth, and noted the amount of things consumed in each factory and the amount produced by each factory during a year, he would deduce at which values the commodities must be sold, if the rate of interest must be uniform and the process of production repeated. In short, the equations show that the conditions of exchange are entirely determined by the conditions of production.
>
> Piero Sraffa, *Man from the Moon*, 1940s (D/3/12/7: 85)

> Men however (and in this they are distinguished from horses) kick.
>
> Piero Sraffa, 1942 (D3/12/16: 18)

The Marxian macro-class determination of the (real) wage of the working class in a truly (capitalist) monetary economy seems not to be adequately conceptualized both by Sraffa and the NI, whereas 'macro' is simply an aggregation, 'money' is just the universal equivalent, and the rate of surplus value fully depends on price determination. The essentiality of the variability of living labour is crucial in the labour theory of value: something which cannot but be downplayed in any approach starting from a given 'productive configuration'. Sraffa seems however to be more lucid than the NI in understanding the 'borders' limiting his object of analysis.

In this view one can paraphrase what Graziani says when he affirms that price determination in commodity markets takes place when the proper object of Marx's value theory is already completed. The basic process of class exploitation - namely, the prolongation of living labour over necessary labour in capitalist labour processes as a contested terrain - is over: only the resulting 'things' are there to be ascertained from the *Man from the Moon*. Marx's aim was rather to explain the source of value and surplus value, to understand whence capitalists profits were generated. This essentially refers to the fact that production is nothing but the consumption of the workers themselves in the vampire-like extraction of living labour: no possible 'redundancy' in this constitutive process. Once the stage of dead labour is reached - that is, Ricardo's object of inquiry; the stage at which Sraffa's price and distribution theory and the NI of the transformation problem cannot but be situated - the given quantity of direct labour is already split between the two different classes according to the outcome of class struggle in production.

The careful reader has already perceived that the more recent discourse over Sraffa and the NI has lead us to meet again the older debate on Traditional Marxism and neo-Ricardianism from where I started. The decisive advance has been a recovery of the monetary dimension of Marx's argument. But if value theory becomes a truly monetary analysis in Schumpeter's and Keynes's sense, and is prolonged to become a truly macro-class monetary determination of production-cum-distribution, the concept of labour-values as an 'intermediate' rule of exchange on the way to prices of production unexpectedly takes a new life, in a non-dualist approach. It is not erased, nor it is reduced to just an alternative rule of exchange: the 'commodity rule of exchange', as Foley calls it. As Kurz remarks, this is not a very meaningful concept. But along the way 'values' has become the pivot concept connecting Volume I and Volume III of Capital. For two reasons. First, they are the price-rule from which one has to start in the 'method of comparison': and this grounds both NI's postulate and Sraffa's normalization. Second, they it give the accountancy through which the class basic relation must be described as the outcome of capital-labour confrontation: and this asks for an approach which integrates and go beyond both Sraffa and the NI.

In a sense, Vianello, Dobb and Napoleoni were all right, though fiercely divided in the 1960s and 1970s. Vianello, because the value created is allocated in circulation through prices, without any need to give a role to labour-values as ruling prices. This non-dualist price perspective has only to be modified to take into account the identity between value added and direct labour as the objectification of living labour. Dobb, because the macro-distribution between classes is accurately portrayed in 'labour-values', as he argued. This, however, can be accepted only if the 'real' distribution between classes (and the 'real' wage for the working class) is determined through the independent decisions of the capitalist class (and hence also through their autonomous demand). At this point Napoleoni's unwillingness to cut out exchange value as the intermediate step between intrinsic value and price of production is vindicated.

Capital produces and re-produces the systemic conditions forcing workers to alienate their labour power. This 'circularity' is thoroughly depicted in *PoC*, where commodities are produced out of commodities. But that circularity depends on a 'linear' process of exploitation, where labour originates capital and the reverse is not true: therefore commodities are produced *by labour* out of commodities. That is why a phrase of the late 1920s may perfectly represent this perspective.: "It is the *whole* process of production that must be called 'human labour', and thus *causes* all product and all values" (D3/12/11: 64). It is needed however to go beyond the 'vice of economists' to see in this a kind of quasi-natural presupposition, which has not be questioned in its genetical origin and in its potentially antagonistic reality.

As Marx wrote, it is only by incorporating the living bearers of labour power (and hence living labour) within the dead substance of the commodities serving as the material elements of a new product and as factors in the labour process that capitalists are able to convert value into more value., money int more money The material body of capital internally 'subsumes' a living other and only thus it becomes an 'animated monster' which begins to 'work' '*as if its body were by love possessed*'. The point is as much capital's ability to be fruitful and multiply as it is its impossibility to escape the dependance from workers as the source of the whole of the value added, and hence of surplus value. The 'spectral objectivity' of Sraffa's book requires to be grounded in the constitutive process of the extraction of living labour from that very special commodity, labour power, 'attached' to living human beings.

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