THE MONETARY EQUIVALENT OF LABOUR AND CERTAIN ISSUES REGARDING
MONEY AND THE VALUE OF LABOUR-POWER

EQUIVALENT MONETAIRE DE TRAVAIL ET CERTAINES ISSUES CONCERNANT
L’ ARGENT ET LA VALEUR DE LA FORCE DU TRAVAIL

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ABSTRACT
Certain contemporary answers to the Sraffian challenge to Marxian Value Theory, as
the “New Solution to the Transformation Problem”, argue that money is the direct
incarnation of abstract labour. Then the value of money is defined as a ratio between
total prices and total hours worked and the value of labour-power as the division of
money wages by the value of money, contrary to their Marxian definitions relating
them to a commodity money and to a basket of wage goods respectively. This route,
while facilitating the establishment of directly quantifiable relations, misrepresents the
operation of the capitalist economy and weakens the labour theory of value, since it
recourses to a Smithian labour-commanded conception of value.

ABSTRAIT
Certaines reponses contemporaines au defi Sraffien a la theorie de valeur
Marxienne, comme la "Nouvelle Solution au probleme de transformation", pretend
que l’argent est l’ incarnation direct du travail abstrait. Alors la valeur de l’argent est
definie comme un taux entre prix totaux et des heures totales deja travaillee,
contrairement a leurs definitions Marxienes les associant a un argent
commoditaire et a un panier des biens de consommation des ouvriers
respectivement. Cet itineraire, tout en facilitant l’établissement des relations
directement quantifiables, represente mal l’exécution de la economie capitaliste et
affaiblit la theorie de valeur du travail, puisqu’il a recours a une conception de valeur
Smithienne comme travail commande.
INTRODUCTION

The revival of interest for the Labour Theory of Value was marked by the Sraffian answer to the “transformation problem”, prevalent throughout the 1970s and 1980s. The latter started from the physical quantities of production and their interrelationships and constructed an equilibrium model of input-output equations where the relation of prices to physical magnitudes was entirely independent of values. This emphasis on the technical characteristics of production led to the rejection of the category of value as redundant. Subsequent Marxist replies to the Sraffian challenge had rightly focused upon abstract labour, as the concept differentiating the Marxian from the Ricardian embodied labour perspective. Most of these approaches bypassed the technicist and static-equilibrium Sraffian framework and aimed to construct a social value paradigm. This project poses a formidable question: if abstract labour is the Marxian alternative to the empiricist Ricardian embodied labour, then how is the former expressed in reality? Ricardian embodied labour, i.e. the labour actually expended during the production process of a commodity, poses no such problems but fails to address the social aspect of labour. On the other hand, while abstract labour expresses inherently the social dimension, it cannot be easily recognised tangibly within actual reality. Abstraction necessarily dictates some degree of departure from the concrete.

For certain of the approaches that confronted the Sraffian challenge it was deemed necessary to establish an unmediated representative of abstract labour. Some [e.g. Gleicher D. (1985-6)]\(^1\) attempted to discover an unmediated (i.e. existing without the mediation of others) actual existence of abstract labour within the production process. It was argued that capitalism has a single historical tendency to degrade and simplify work. Therefore at the modern stage of mature capitalist development it predominates a generally common form of undifferentiated work which is the obvious and direct incarnation of abstract labour. Such perspectives drew popularity and support during the high days of the Labour Process debate and under the auspices of the Braverman thesis on deskilling. However, as soon as these influences retreated and, furthermore, it was established that capitalism poses no single tendency towards either upskilling or deskilling, the validity of the undifferentiated work thesis was seriously questioned.

At this point another possible route appeared ahead for those searching for a direct and unmediated representative of abstract value: money. The so-called “Rubin school”\(^2\),

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\(^1\) It should be noted that Gleicher himself aimed to a new theory of the ontology of abstract labour based on the works of Sraffa, Uno and Braverman rather than attempting to reject Sraffa.

\(^2\) The so-called “Rubin school” [Benetti C.-Berthomieu C.-Cartelier J. (1975)] sought to construct an abstract-labour theory founded on social relations. It maintained that labour becomes abstract (and thus socialised) only through the exchange of commodities with money, therefore
theories of some form of a Labour Equivalent of Money (LEM)\(^3\) and, more prominently, the “New Solution” (or “New Interpretation”) to the “transformation problem”\(^4\) share this thesis. Their common kernel recognises money as the direct and exclusive incarnation of abstract labour. For the last two strands this leads to a relationship between money and abstract labour at the level of the aggregate magnitudes of the capitalist economy which enables to define a version of “value of money” (LEM) or, alternatively, of Monetary Expression of Labour (MEL). For all the representatives of these views - with the possible exception of De Vroey - these ratios are based on a net rather than a gross product level. This relationship between money and abstract labour is then coupled with a peculiar understanding of the value of labour-power.

It is telling how the “New Solution” - which can be taken as the exemplary showcase, since is the more coherent and analytically articulate version of this approach – confronts these issues. It posits an immediate equality between the total price of the net product and the total living labour performed in each period. On this basis it defines the MEL as the ratio of the price of the net product divided by the total hours worked. The MEL is subsequently employed throughout the analysis in order to render prices into values. The value of labour-power is then defined as the product of the rate of money wages by the MEL. Both these definitions depart from the Marxian understanding of the value of money and of labour-power that linked the first to the value of a commodity-money and the second to the value of a bundle of wage-goods. However, “New Solution’s” perspective has considerable merits. First, money – which is downgraded to a simple numeraire in the Sraffian perspective – is brought in [Mohun S. (2000), p.113]. Second, it becomes fairly easy to construct macroeconomic models which admit of empirical verification [Foley D. (1997), p.20] while remaining founded on the labour theory of value, since the MEL translated flows of money in real-world capitalist accounts to flows of labour-time and vice versa [Foley D. (1997), p.17-

\(^3\) Certain Regulationists [e.g. Aglietta M. (1979), De Vroey M. (1981)], were among the first propagators of the LEM perspective. For an extensive critique of this view see Mavroudeas S. [(2001)].

\(^4\) The “New Solution” originated with Dumenil G. [(1980), (1983-84)] and Foley D. [(1982)]. Lipietz A. [(1982)] - coming from the Regulation Approach – adopted this approach and added a so-called viability condition Dumenil”s solution. This condition claims that the viability of the system (i.e. the existence of positive prices of production from a zero to a maximum profit rate) is necessary and sufficient for the existence of profit rate equalising prices. Dumenil G. [(1984), p.343] has rejected this condition as irrelevant and further disputed the assumption that the system of prices should guarantee an evenly distributed rate of profit. In reply to Dumenil, Lipietz A. [(1984), p.353-4] evaded these issues.
18]. Therefore, there is no need o a separate accounting system based on labour coefficients and ordinary national accounts can be used. In this way a social value paradigm is constructed, the empirical validity of the labour value theory is reasserted and significant obstacles - the “transformation problem” being the most important of them - are surpassed.

This article studies “New Solution’s” methodological and analytical foundations. It argues that, although its aims are legitimate and commendable and certain of its insights can be very fruitful, the approach adopted in this respect is problematic. If the only thing at stake were the so-called “transformation problem” – which has ended up in a rather arcane academic debate - then reservations and objections would not be important. But for both Ricardo and Marx and the “New Solution” scholars the transformation of values to prices concerns not an academic dispute but the understanding of the internal workings of the capitalist system. As such it cannot be simply a matter of mathematical hypotheses or a problem of its own. An explanation of the transformation procedure – and a “solution” to its mathematical technicalities – should illuminate the way capitalism operates. Thus, the analysis of the transformation process should lead, at a lower level of abstraction and with the introduction of further hypotheses, to a value-theoretic macroeconomic analysis. It is on these grounds that “New Solution’s” methodology and fundamental hypotheses are questioned.

In a nutshell, this article argues that this welcomed return to the empirically tangible flirts dangerously with empiricism and has grave analytical implications, which appear mostly in two fundamental areas: the conceptions about money, its value and the value of labour-power. In both these areas the quest for the empirically tangible leads to a Smithian labour-commanded perspective [Lapavitsas C.-Mavroudeas S. (1997), Shaikh A.–Tonak E. (1994)]. “New Solution” posits that money represents value in a direct, not mediated, and ideally abstract manner, allowing the derivation of equilibrium macroeconomic relationships. In fact - and leaving aside the well known problems associated with the use of the net rather than the gross product - the opposite is true: socially necessary labour-time (the substance of value) becomes expressed in units of money (the price-form of value) through a series of indirect mediations. These mediations, moreover, inherently contain the possibility of disequilibrium and violent economic upheaval. To collapse the mediated expression of value as price into the simple division of the total hours worked over the price of the net product is to miss both the complexity of the real process and the potential for disequilibrium inherent to the latter. In a similar manner, to posit the value of labour-power as the product of money wages by the MEL has the following two deeply problematic implications. First, the commodity nature of labour-power can be effectively denied and this was indeed the case in certain works [e.g. Mohun S. (1994)]. Second, this concept of the value of labour-power is reminiscent of Smith’s labour-commanded rather than Marx’s
abstract labour. Consequently, the analysis of the effect of technical change on the rate of exploitation and on the formation of values and prices is significantly hampered.

The characteristic feature of capitalism as a social system is that it transforms money and labour-power into peculiar commodities. Marx attempted to develop a labour theory of value based on the notion that value is generated in production, which could also apply to these two peculiar commodities. Because of their peculiarity, his application of the labour theory of value to them follows a more sophisticated route than the one for ordinary commodities. The determination of the value of money is mediated by the role of the commodity-money and the determination of the value of labour-power is mediated by the role of the basket of commodities that represent the consumption standards of the working-class. To surpass this process of mediation by recoursing to labour-commanded, while facilitating the establishment of empirical - and quantitative - relations, loses significant aspects of reality and weakens the labour theory of value. “New Solution” pays a heavy toll by abandoning this process of reasoning. It ends up with a weakened explanatory power, which emerges when it is accepted that it consists of definitions rather than determinations.

The main focus of this article is on the definition of the value of labour-power, although reference will be made to the definition of the value of money as well, since these two definitions are interlinked and there is a certain “symmetry” in the way “New Solution” theorises them. Section I of the article attempts to reconstruct and support Marx’s conception about abstraction and value. It questions the validity of those approaches that search for a direct and unmediated incarnation of abstract labour in general and, particularly, those that find such an incarnation in money. Abstract labour does not have - and it is not required to have - an autonomous, direct and unmediated mode of existence. On the contrary, like most abstractions, it exists through other things and relations. This does not mean that abstractions are intellectual tricks and have no real existence, but that their reality is expressed via separate external forms. Section II discusses the role of the value of money and argues that it is crucial for any value-theoretic analysis. However, it is argued that Marx’s linkage of the value of money to the value of a commodity-money is indispensable. “New Solution’s” definition of the MEL fails to grasp this linkage. Section III turns to the determination of the value of labour-power focusing on its commodity nature. It is maintained that the value of labour-power depends critically on a set of use-values, represented by the bundle of wage-goods. Finally, Section IV shows that the root of “New Solution’s” problems lays in its problematic understanding of dialectical abstraction and the resulting conception about abstract labour.

I. DIALECTICAL ABSTRACTION AND VALUE IN MARX
The method of dialectical abstraction is a central tenet of Marxian theory. Following Marx’s well-known premonition that all science would be superfluous if the internal essence of things was identical with their outward appearance, abstraction is employed in order to move behind appearance to discover the underlying essence. It is the latter that constitutes the determining aspect. This rigorous distinction between essence and appearance but also their dialectical interrelationship is a particular differentiating characteristic of Marx’s methodology, stemming from his Hegelian inheritance.

The Marxian perspective is partly similar with that of Ricardo, in the sense that both - Marx in more coherent and general philosophical terms, Ricardo solely in the field of the value-price relationship - searched for a force underlying and determining outward forms. However, as Zeleny (1980) has shown, while for Ricardo essence is something qualitatively fixed and non-differentiable, Marx understands it as a dynamic force, which is historically transitory and proceeds through different levels of development. For Marx the essence of things is dynamic and transformable exactly because it is not a technical characteristic but a fundamentally social one. For this reason, Marx was able to incorporate the historical and social dimension and to establish the transitory character of the capitalist system. Additionally, apart from essence being dynamic and transformable, Marx also understood that there exist feedback relations between essence and appearance, again contrary to Ricardo. Essence determines appearance but - at a secondary level and taking into account the time dimension - the latter in turn affects it.

Both these two elements - the historical and dynamic character of essence and the feedback relationship between essence and appearance - lay beneath Marx’s differences with Ricardo’s Value theory. Whereas Ricardo’s embodied-labour neglects the historical and social dimension, Marx’s abstract labour is founded exactly on this dimension. Value is the representation of labour solely in capitalism and on this basis - i.e. the social relations between producers and non-producers - it determines price. It is neither a supra-historical nor a technical factor. Additionally, price is not only the necessary form of outward appearance of value but it affects - at a chronologically sequent and secondary level - value.

In this sense, Marx’s conception about abstraction differs from both that of Ricardo and that of orthodox Economics. Ricardo’s abstraction searched for an essence behind prices which could be directly derived and would have an unmediated physical presence. Orthodox Economics, on the other hand, when employing a process of abstraction, understand it as a purely logical trick; abstraction is a mental exercise which may enable us to grasp reality but which it is not itself real. Marx, contrary to Ricardo, maintained that the process of abstraction must follow a dialectical spiral passing through several stages. Beginning from the most abstract (and simpler) level, at each stage of the dialectical spiral more concrete (and secondary) features should be added until — at the final stage — we can acquire the total unity of appearance and essence. Contrary to orthodox Economics,
the Marxian abstraction refers to real relations and it is not a simply mental process. For orthodox Economics — following the dominant positivist and empiricist perspective — “real” (as opposed to “ideal”) is only something that has an immediately tangible physical presence that can be directly verified empirically. For Marx essence need not have — and in most cases does not have — an autonomous physical presence. Its “reality” is established via its forms of appearances, i.e. it is present through the physical existence of other things.

Therefore, the value abstraction is a real - not mental - abstraction because it derives from a real social process: that of commodity exchange. It is precisely this empirical non-particularity of the value that renders it "abstract", just as its provenance in the socio-temporal sphere of actual human interactions renders it "real".

Value is the representation of abstract labour and it is a characteristic pertaining to the capitalist mode of production exclusively. In this it differs from exchange-value (the exchange ratio between commodities) that applies to all commodity-producing modes. Every social mode of production has a certain mechanism of equalisation of concrete labours. In the capitalist mode of production this equalisation takes the form of the renumeration of concrete labours to the space of abstract labour. The latter is expressed through market exchange. However, the value abstraction - and therefore abstract labour - is not generated in exchange but in production and refers to the capital-labour relation. It hinges upon a double indifference. On the one hand, capitalists are indifferent towards the particular type of production process they are going to exploit, since use-value is of no significance for them. The only thing that matters is the availability of a working population for exploitation. Only at a secondary level an individual capitalist considers the particular type of production process he will exploit. On the other hand, with the advent of the real subsumption of labour by capital, workers become equally indifferent to the particular type of labour they are going to perform in exchange for wage. This of course holds at the higher level of abstraction. At lower levels, and towards the concrete, the workers consider the

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5 There is an ongoing debate within Marxist Political Economy on this issue. This article supports the position voiced by Rubin I.I. [(1973), ch.11, 14] and Elson D. [(1979), ch.1], among others, that value – as the expression of abstract labour - is a category belonging solely to the capitalist system. In pre-capitalist societies the socialization and equalization of labour was not effected through a market system; therefore the concept of abstract labour does not apply to them. Equally, in pre-capitalist societies commodity exchange was not based, mainly, on wage labour. Thus, value as the representation of abstract labour is a category applying solely to the capitalist system.
particular type of work they are going to perform in “symmetry” with capitalists’ before mentioned secondary level of consideration.

On the other side, this abstraction of labour as such is not merely the mental product of a concrete totality of labours. Indifference towards specific labours corresponds to a form of society in which individuals can with ease transfer from one labour to another, and where the specific kind is a matter of chance for them, hence of indifference. Not only the category, labour, but labour in reality has here become the means of creating wealth in general and has ceased to be organically linked with particular individuals in any specific form. Such a state of affairs is at its most developed in the most modern form of existence of bourgeois society - in the United States. Here, then, for the first time, the point of departure of modern economics, namely the abstraction of the category "labour", "labour as such", labour pure and simple, becomes true in practice.


In this sense, abstract labour - as a social concept - is established at the primary determining level of production and then expressed through exchange. Capitalists in their choice for the organisation of a production process take social relations as given. Then they proceed in the direct production process by taking into account market conditions and having from the start in mind the transformation of the products into commodities. Thus, concrete labour performed under their command is already rendered commensurable with general social labour available for exploitation. However, this primary, preliminary, tentative but also latent commensuration is ultimately realised in the actual sphere of exchange. There and only there the initial commensuration will - or will not - be validated. Abstract labour, as the immanent measure of value, is operationalised through the socially necessary labour-time.

The ultimate and most mature form that value - as the representation of abstract labour - assumes is that of money. However, money-form acquires its power of representation only because the labours expended are primarily indifferent towards their specific concrete application. Marx established through the analysis of the form of value that money is the necessarily and spontaneously emerging representative of value, the universal equivalent. The emergence of the universal equivalent is itself a complex process, which is inextricably connected with the existence of a commodity that operates as the basis of money. The form of money that actually represents value, on the other hand, need not necessarily be the commodity money.

6 At this lower level of abstraction it might not be unrealistic to maintain that the workers’ concern about their specific job is probably greater than the capitalists’ concern about their branch of activities, since the worker is closer to the use-value aspect of production.
Thus, for Marx, labour is expressed as value through a set of production and exchange relations, and value is given an independent representation by money. To put it differently, value accounted for by its intrinsic measure (i.e., socially necessary labour-time) becomes value accounted for by the external measure of value (i.e., units of money) through a process of successive mediations.

II. ABSTRACT LABOUR, MONEY AND ITS VALUE

“New Solution” bypasses all this method of analysis and proceeds to identify directly money with abstract labour, following a self-proclaimed “Rubin type approach”\(^7\). There are obvious merits in this view. First, money has a directly social dimension since it is related to state power and thus surpasses shallow technicism and/or physicalism. Second, it refers almost immediately to the process of intra-capitalist competition - which was undermined in the Ricardian and Sraffian approach. However, these merits are greatly outstripped by their deficiencies.

Indeed money, as the general equivalent with which every commodity is exchanged and, thus, as the general mediator of commodity exchange, has an obvious social character. However, its deification as the sole and absolute expression of the social dimension is an oversimplification. It certainly undermines the inherently social character of production and reduces it to a fragmented sum of private processes, conceived from a basically technical perspective, and related solely through exchange. It neglects the social division of labour - of which I.I.Rubin was well aware of and in many cases warned against such a misconception. For Marx, in exchange is made visible the contradiction between private labour and the social division of labour which is internal to production itself. The

\(^7\) Rubin was opposed to many of the views of his modern “disciples”. He affirmed explicitly that value could be studied without having previously established money [Rubin II. (1978), p.36]. Equally explicitly he condemned the view that value is created in circulation, as many of his contemporary adherents – but not the “New Solution” - maintain. On the contrary he stated explicitly that “abstract labour and value are created or “come about”, “become” in the process of direct production (Marx used the expression “werden” more frequently for this process) and are only realised in the process of exchange” [Rubin I.I. (1978), p.125]. Finally, referring to the quantitative determination of abstract labour, Rubin I.I. [(1973), p.154] clarified that it is a misunderstanding “to admit that the social equalization of labor in the process of exchange is carried out in isolation of dependence on production (for example, the length, intensity, length of training for a given level of qualification, and so on), and thus, the social equalization would lack any regularity since it would be exclusively determined by market spontaneity”.

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social dimension, therefore, derives and exists first and foremost in production. Value, as the central pivot of social relations, is created in production and defined prior to, and independent of, money. For Marx money is indispensable (contrary to the Classicals’ theorisation of the economy as a barter system) but it is a secondary and dependent element.

Commodity exchange is organically prior to the category of money and ought to obtain without the mediation of the latter. This has nothing to do with the actual historical succession, but refers to the essential nature of history. The capitalist mode of production was born and subsequently inherited forms of money deriving from the context of pre-capitalist modes. However, these forms had to be transformed to the money-form appropriate to capital. In this sense, the capital-labour relation is an organic prerequisite for the emergence of the capitalist money-form. Thus, the exchange equivalence between commodities derives primarily from their common intrinsic character, namely of being products of labour. Money and money prices mediate this equivalence, but are not the primary determining factors. Money does not precede the commodity but it is generated from the differentiation within commodity exchange. Value, then, is created in production and is validated in exchange. The crucial distinction is that between use-value (expressing the material foundation of production) and value (the social form). The production and circulation of use-values can be defined independently: a certain determinate quantity of use-values is first produced and then exchanged. However, the production and circulation of value cannot be defined independently: labour-time is expended in production but it is socially validated in circulation. Consequently, abstract labour and value are prior to money. Abstract labour creates value in the immediate production process, prior to exchange. The category of money should be derived from the commodity category only when the value category is sufficiently developed.

“New Solution” and the MEL

The central idea of the “New Solution” is that money represents labour-time and thus one can use a measure of the MEL appropriately defined at the level of the aggregate system of the capitalist system to translate flows of money in real-world accounts into flows of labour-time and vice versa. In this way the need of a separate accounting system based on embodied labour coefficients is not necessary. Therefore, MEL is defined as the ratio of the net domestic product at current prices to the living labour expended in an economy over a period of time.

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In algebraic terms – following a simplified version of Foley D. [(1997), p.13-16]\(^9\) - the vector of net output, \(y\), depends on \(x\) (the vector of gross output) and \(A\) (the matrix of input coefficients):

\[
(1) \quad y = x - Ax
\]

The vector of commodity values, \(\lambda\), depends on \(A\) and \(l\) (the vector of living labour):

\[
(2) \quad \lambda = \lambda A + l
\]

The value of the net product is equal to the total living labour generated in production:

\[
(3) \quad \lambda y = lx
\]

Given \(p\) (the vector of money prices), the money price of the net product is \(py\). Then \(py\) is directly mapped on \(\lambda y\) (the value expression of the net output) and thus Marx’s second invariance condition (the equality of total price to total value) is established (see Sinha A. [(1997), p.52]). Then MEL is defined as:

\[
(4) \quad \text{MEL} = \frac{py}{\lambda y} = \frac{py}{lx}
\]

or alternatively:

\[
(5) \quad \text{LEM} = \frac{\lambda y}{py} = \frac{lx}{py} = \frac{1}{\text{MEL}}
\]

Lipietz A. [(1985), p.23] defines LEM as the quantity of abstract labour represented by the unit of money (called currency), which can be found by dividing the quantity of labour needed to produce the net product by the price of that product. Similarly, Foley D. [(1982), p.41] defines the value of money as the ratio of aggregate direct labour-time to aggregate value added. De Vroey M. [(1981)], on the other hand, proposes the "monetary expression of social labour-time" as the ratio of the sum of prices to the sum of values. Hence, Foley, while endorsing Lipietz’s formulation, has reservations about De Vroey’s formula since it does not clarify whether the sum of prices refers to aggregate price or aggregate value added.

The central aspect of this theory, as is freely admitted [Foley D. (1982), p.41], derives from the contours of a "Rubin school" approach. Rather than labour-time determining price,

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\(^9\) See also Campbell A. [(1997)].
this theory begins at the global level by positing that the money value of the whole mass of net production of commodities expresses the expenditure of the total social labour in a commodity-producing economy. Hence, it retains at the global level the relation between money and embodied labour, which is central to the idea that money is a form of value and that the substance of value is abstract social labour (Foley D. (1982), p.37). This requires a strict relation between the monetary unit (whether that unit is linked to a general equivalent commodity-money or not [Foley D. (1997), p.19] and abstract social labour-time. Thus, a unit of money is defined as a claim to a certain amount of the abstract social labour expended in the economy. However, once this relation between money and abstract labour is established at the aggregate level, then a transformed monetary unit (MEL) is used in order to calculate the value of each particular commodity.

After deriving the MEL, the “New Solution” proceeds to define the value of labour-power as the division of money wages (w) by MEL (or alternatively the product of money wages multiplied by the value of money):

\[
VLP = \frac{w}{MEL} = \frac{w}{(py/lx)} = \frac{w}{py} \times \frac{lx}{py} = \left(\frac{w}{py}\right) \times lx
\]

This is necessary because one of the declared purposes of the “New Solution” is to solve the so-called “transformation problem”. As it is well known, the essence of this problem is to derive a set of prices of production from the technical conditions of production subject to the equalisation of the profit rate for all competing capitals while - at the same time - satisfying Marx’s two “invariance conditions” (i.e. the equality of total profit to total surplus-value and of the total price of the output to total value). As it has been shown, the “New Solution” begins by assuming as given a transformed version of the second invariance condition; namely that the total price of the net output is equal to its total value. On this basis it defines the MEL. And then, by defining the value of labour-power as the product of money wages multiplied by the inverse of the MEL, it proves easily the first invariance condition.

This extremely elegant scheme has, however, significant problems. The adoption of a net product perspective is highly problematic since it undermines the role of constant capital [Saad-Filho A. (1996)]. Gross output contains the value of constant capital, that is “dead labour” expended in the past which needs validation in the present, while at the same time securing the reproduction of the existing conditions of production. This is a very complicated question because, if there is continuous technical change, then the latter differentiates the social evaluation of “dead” relative to “living” labour. Thus, present production conditions affect the validation of the product of past production conditions. Foley D. [(1997), p.24] has argued that the “New Solution” can incorporate an estimation of constant capital by using MEL. But this stratagem can only hold if the expression of the value
of constant capital into its price takes place at the same rate as that of the net product into its own price. There is no a priori reason why this will hold.

Nevertheless, the net product is not "New Solution's" critical problem. Its main deficiency is that it resorts to a Smithian labour-commanded conception of the value of money and the value of labour-power. The Smithian conception has been rightfully criticised by both Ricardo and Marx. The gist of their criticisms was that Smith's perspective could not grasp the effects of changes in technology and productivity on the value of commodities. The "New Solution" perspective suffers from very similar problems.

First, as can be seen from equation (5), the value of money (LEM) – and this holds also for its inverse (MEL) in equation (4) - is simply the command exercised by the monetary unit over the value of net output in the sphere of exchange. In other words, it is the command of the monetary unit over the value of other commodities. For Marx, the value of money is fundamental in the process through which the substance of value (labour-time) is expressed as price (the money-form). However, he did neither posit a direct identification between these two nor understood it as simply labour-commanded. Because he considered that it was necessarily linked to the role (and the value) of commodity money, the process of determining the value of money proceeded through several levels of abstraction which reflected an equally sophisticated real process. For this reason he distinguished rigorously between the intrinsic or immanent (labour-time expended under the normal conditions of productions (average degree of skill and intensity etc.), i.e. socially necessary labour-time) and the external measure of value (money). In capitalist commodity production, labour is only indirectly socialised through exchange. Therefore, the quantitative expression of value must assume a form of expression appropriate to the modalities of exchange. The primary determining sphere of production must be expressed according to the prerequisites of the secondary sphere of exchange. Thus, the external measure is required. If value has labour-time as an immanent measure (one appropriate to its nature, its primary determination in production) and money as an external measure (one appropriate to the secondary determination in exchange), it is the first that assumes primacy, it is inherently appropriate; and the second is externally necessitated. For the “New Solution”, however, this distinction becomes mere lip service and both aspects are being subsumed by MEL. In the latter the primary determination by production is lost and the causal determination - accurately expressed in the distinction between immanent and external measure - is at least blurred. Seldom, if a causal relation is defined, this is a circulationist one: money (and exchange) is the primary determinant.

Marx’s layered process of abstraction and his rigorous distinction between the intrinsic and the external measure of value is evident in his treatment of the value of money. The latter is related to the value of a specific commodity (usually gold) operating as the general equivalent. Its conditions of production determine the value of this money-
commodity and then the value of it is used to measure every other commodity. Thus the sphere of production maintains an indirect but firm grip on the sphere of exchange. This process is characterised by contradictions and disequilibria since even the price of the monetary unit diverges from its value, due to variations in its organic composition and its turnover time. The MEL neglects all this contradiction-ridden process and obscures the possibility of disequilibria. This might not be a problem for a theory establishing merely accounting identities. However, it is a serious problem for a theory aiming to link its definitions with a coherent and realistic macroeconomic analysis.

By the same token no mechanism is provided explaining how changes in its constituent parts determine changes in the level of MEL. Although MEL can grasp the changes in productivity on aggregate, it cannot grasp them when they apply unevenly between sectors. If productivity changed evenly between sectors, the effect would be reflected by both the numerator and the denominator of MEL and, therefore, expressed in the subsequent MEL. However, if productivity change takes place unevenly among sectors the MEL would only reflect its undifferentiated average effects on the capitalist economy as a whole. This problem becomes graver when productivity changes take place unevenly between the aggregate level and Department II (i.e. the department producing means of consumption), which is crucial for capitalism’s essential tendency to extract relative surplus-value.

Because the MEL is a ratio which can be derived only ex post - as Foley D. [(1997), p.23] admits - it does not provide any relation of determination between value and price and, thus, lack explanatory power. This deficiency takes a rather heavy toll. Foley D. [(1997), p.18-19] argues that MEL’s definition MEL does not commit us to any particular theory about its determination and it can work equally well for a commodity-money system or for a state-credit based system. This is partially true. In both cases the determination of the MEL would require an intermediary: either the price of commodity-money relative to that of other commodities (which is geared in production) or speculation on the prospective solvency of the state (which is geared in circulation). These intermediations would affect differently the derivation of MEL. However, the first intermediation would secure the primacy of production (the locus of the production of value) and grasp changes within it, whereas the second would depend on circulation. In the second case the determination of MEL (the translator of prices to values) would be critically affected by exchange.

III. WAGE, THE VALUE AND THE NATURE OF LABOUR-POWER

"New Solution" has a highly innovative conception of its other pillar, the value of labour-power. As can be seen from equation (6), the latter is defined as the product of the
rate of money wages by the MEL. This is radically different from Marx’s own definition of
labour-power (as well as from Ricardo’s definition of the value of labour) which refers to a
customary or average standard of living of the working class associated with a bundle of
consumer goods (and the labour-time embodied in them).

For Marx, the value of labour-power represents an amount of labour-time (necessary
labour) which is expressed as wage (its money-price) and which, in turn, is able to buy a
bundle of commodities necessary for the reproduction of labour-power. Hence, the
expression of the substance of the value of labour-power (necessary labour-time) to its
monetary price-form (the wage) is necessarily related to the value of the bundle of consumer
goods.

Within the formal framework of the transformation controversy, the value of labour-
power - given b, the vector of workers’ consumption commodities - is defined as follows:

\[ V_{LP} = \lambda blx \]

This has to be transformed to its prices of production equivalent, earning the uniform
rate of profit (\( p \) being the production price):

\[ V_{LP, p} = p_{p} blx \]

And, finally, the value of labour-power should be expressed in the wage \( w \), its
monetary price-form which is subject to supply-demand fluctuations and the short-term
equilibrium of forces in the class-struggle between capital and labour.

For Marx, wage vacillates around its value but it rarely coincides with it. Therefore,

\[ w \geq V_{LP} \]

Wage can also be lower than the value of labour-power (\( w < V_{LP} \)) but this will
endanger, in the long-run, the reproduction of labour-power and, thus, the viability of the
capitalist system.

This mathematical formulation, while faithful to Marx’s own theory, when put within
the simultaneous equations context of the transformation controversy leads to well-known
difficulties. If the value of labour-power is the value of a given physical bundle of means of
subsistence, then its transformed-value (price of production) should be adjusted so as to
continue to buy the same bundle at its new transformed-value. Marx, in his transformation
tables, while deriving a transformed-value of the means of consumption, he valued variable
capital at the original value rate. Thus, the real wage (the ratio of a unit of means of
subsistence over a unit of labour-power) changed at the end of the transformation
procedure. Critics pointed out that the value of variable capital has to be transformed as well. If the real wage is held constant - as Bortkiewicz L. [(1949)], Seton F. [(1957)] and Morishima M. [(1973)] have argued - then total surplus-value does not coincide with total profit.

"New Solution" adopts a different perspective. The value of labour-power is not the labour-time required to produce the use values necessary for the reproduction of the worker but the value of money wage multiplied by the value of money, therefore the wage share in the net product. In this sense, the value of labour-power is the portion of the total labour-time that a given sum of money wages can command.

There are well known problems with the use of the wage share - which is an ex post measure and depends crucially upon distribution – and Foley D. [(1997), p.25] recognises them. However, these problems are exacerbated because, as already argued above, this definition of labour-power is akin to Smith's second approach to the labour theory of value (labour-commanded in exchange rather than embodied in production). To sustain this perspective many "New Solution" writers find it necessary explicitly to reject the commodity-nature of labour-power (unlike not only Ricardo and Marx but also Smith).

"New Solution's" definition of labour-power serves two declared purposes. First, with regard to the transformation problem, it derives - almost by definition - Marx's second condition of invariance. Second, when explicitly linked to the rejection of the commodity-nature of labour-power, it refutes Samuelson's P. [(1982)] well-known argument that if labour-power is a commodity it is similar to all others and therefore it does not deserve a special status.

The fulfilment of the first purpose follows as an immediate corollary of "New Solution's" definition of labour-power. The labour-time represented by the variable capital advanced at the beginning of the production process (money wages) is assumed to re-emerge intact in the proceeds from the sale of output. The labour embodied in constant capital, on the other hand, has a money equivalent paid at the beginning of the production process which almost always differs from its money equivalent received from the sale of output. Thus, variable capital is understood as simply a quantity of labour-time represented directly by a sum of money; constant capital, on the other hand, is necessarily connected to a bundle of capital goods the price of which might diverge from their values. Then Marx's first condition of invariance (total profit equals total surplus-value) is easily derived by positing the total value of labour-power as the wage share in the net product.

The second purpose is related to the first, since much of Samuelson's critique hinged upon the re-valuation of variable capital. On this ground, Samuelson argued that if labour-power is a normal commodity then either there is no basis for a theory of labour exploitation. This leads to a complete rejection of the explanatory validity of the Labour Theory of Value.

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This section shows that, despite certain interesting insights, “New Solution’s” conception of the value of labour-power cannot grasp properly the essential properties of the capitalist system and, indeed, is inferior to the Marxian conception. Firstly, whether the commodity-nature of labour-power is explicitly rejected or not, it implies that its value is determined by relations external to capitalist production, above all through class struggle in the sphere of distribution. The determination of the value of labour-power, divorced from the use values consumed by workers and from the related socially necessary labour-time, can only be attributed to the operation of institutional arrangements and power relations. When this is supplemented with the rejection of the commodity-nature of labour-power, then it can easily lead to a prioritisation of power relations independently and almost prior to socio-economic relations. Secondly, it is further shown that the implicit adoption of the Smithian labour-commanded perspective makes it impossible to analyse the effect of technical change on the value of labour-power (the extraction of relative surplus-value), and thereby on the rate of exploitation and the rate of profit. Overall, “New Solution’s” attempt to derive the value of labour-power immediately from directly observable factors (money-wages) - whereas appearing to strengthen the empirical validity of the Labour Theory of Value - it ends up in a quagmire. Being unable to distinguish levels of abstraction, it cannot grasp the complex intermediation process between socially necessary labour-time, use-values (bundle of subsistence goods) and money-prices (wage). On the contrary, the classical Marxian definition of the value of labour-power is better suited to theorise this essential process.

On the value of labour-power

The Marxian definition of the value of labour-power links together three dimensions: labour-time (value), use-value (bundle of commodities) and money-price (wage). The substance of the value of labour-power (necessary labour-time) is expressed as wage (its money-form price) through a series of mediations, of which more important is that of a customary living standard expressed by a bundle of consumption goods (use-values).

In the fundamental dimension of labour-time, the value of labour-power denotes the division of the working day into necessary and surplus labour-time [Marx K. (1982), p.325]; which is the foundation of capitalist exploitation. This division reflects the subsequent division of labour in necessary and surplus labour. The first is the labour necessary for the production of the use-values that are required for the reproduction of the labourer. Surplus labour is performed by the labourer but it is appropriated by the capitalist as surplus-value. Marx K. [(1982), p.325f] characteristically argues that:

In this work we have up to now used the term “necessary labour” to designate the time necessary under given social conditions for the production of any commodity.
Henceforward we use it to designate as well the time necessary for the production of the particular commodity labour-power. The use of the same technical term in different senses is inconvenient, but it cannot be entirely avoided in any science. Compare, for instance, the higher with the lower branches of mathematics.

To this extent the determination of the value of labour-power is similar with that of all other commodities. However, labour-power is a commodity different from all the others, since it only exists as a capacity of the living individual and it is inseparable from its bearer. Its reproduction is that of the human being, one aspect of which (his capacity to work) is commodified in capitalism. But it is not also a natural good that enters the market without any value, acquiring there a price. Its reproduction entails human effort but this is not expended through a capitalist production process. Neither wage labour nor means of production take part in this process. For these reasons there is no creation of new value or surplus-value and the sale of the commodity labour-power does not operate according to the rules of typical capitalist commodity exchange (obtaining an average rate of profit etc.). The only requirements for this reproduction process are non-waged human effort and a set of means of consumption bought in the market. The first is not paid and does not have a cost neither receive an income. However, the means of consumption are produced through wage labour - thus there is labour embodied in them - and there are bought in the market, as all capitalist commodities. Therefore, they contain value and have a price, which workers have to pay. On the other hand, contrarily to consumption goods consumed by capitalists (luxuries), workers” consumption is a productive activity and they transfer their value to the commodified aspect of human reproduction (labour-power). This value has to be reflected on the price that is paid for buying labour-power (wage).

The reproduction of labour-power is a sine qua non operation of capitalism for obvious reasons. Since workers take care themselves of the reconstitution of their capacity to work, the system has only to guarantee them the necessary means of consumption. Therefore, necessary labour-time reflects the labour-time required for the production of this set of consumption goods. There are good reasons for this association of necessary labour-time (for the reproduction of labour-power) with a set of use-values (consumption goods).

Because workers do not participate in capitalist exchange and competition they do not have a view of the value dimension as it is formed in this sphere. They are primarily concerned about a range of goods necessary for their recuperation from the work effort and for the subsistence of their families. Therefore, they are interested in a basket of commodities but seen primarily from its use-value side. In the labour process workers comprehend the labour-time aspect - since this is a field of continuous struggle with capital over conditions of work - and the physical aspect (in the form of a mass of produced commodities). They do not conceive the value dimension because they do not participate in
competition. In the consumption process they spend their income to buy the use-values necessary for their subsistence. Two considerations are present there. First, the set of necessary use-values has to be obtained. Second, in order to acquire it workers must have the necessary amount of money, so as to pay for the money-price of this set. The first consideration reflects the use-value side, whereas the second reflects the money-price side. The latter is the more concrete form of value, following the transformation of labour values to prices of production and then to market prices. Labour values represent the labour-time dimension which dominates the production process and class struggle within it. Prices of production reflect labour values in the sphere of intra-capitalist competition on the basis of a given technological structure. Finally, market prices do not only encompass supply and demand fluctuations but also the conditions of formation of the general equivalent.

Hence, workers conceive first, the labour-time dimension, second the use-value dimension and third, the market-price dimension of the necessary means for the reproduction of their labour-power. Their understanding is crucial because the determination of the value of labour-power is not a technical process but a contested social terrain, subject to class struggle. Marx - contrary to Ricardo’s initial belief in a naturally fixed level of subsistence - advanced a dynamic theory of the determination of the value of labour-power. He recognised two elements: a) a physical one, which covers the so-called "natural needs" (such as food, clothing, fuel, housing etc.), which also varies according to the climatic and other physical peculiarities of a country and, b) a historical and social one [Marx K. (1982), p.275]. Whereas the physical element is only distantly socially determined, the historical and social element is directly socially determined and reflects the balance of class forces in a particular society. Workers’ struggle in production over their working conditions affects the allotment of labour-time between its necessary and its surplus component. Additionally, they struggle in distribution for wages that would guarantee -and even improve- their recuperation from work. Whereas the first struggle is about labour and labour-time, the second struggle is about money-wages. The link between them is provided by a bundle of commodities representing workers’ customary standard of living; itself constituted via class struggle.

For these reasons Marx’s determination of the value of labour-power links necessary labour-time to a bundle of consumption goods and, then, both to money-wages. This is a complex process that is characterised by disequilibria. Marx’s theory of wage does not imply a simplistic identification of necessary labour time and wage, as Lassale’s "iron law of wages". The physical element sets the ultimate minimum limit. This does not mean that the value of the labour-power and the wage cannot increase. However, it does mean that there is an upper limit to this increase and this is given by the movement of the rate of profit:

"labour is subject to the economic power of capital in capitalism from the outset, and its "share" must naturally always be conditional on the "share" of capital. Therefore
the real uppermost limit of wages is given by the size of profit, and, more precisely, by the movements of the rate of profit”.


Thus, during the transformation process, necessary labour-time is reflected in a bundle of consumption goods. This defines the value of labour-power. Then the wage (its money-price) oscillates around this value. It is true that, insofar as the simultaneous equations framework of the so-called “transformation problem” is concerned, this requires that the value of variable capital should be equal to the transformed value (price of production) of the means of subsistence. And there appear well-known mathematical problems. Moreover, there is no reason whatsoever which necessarily equates socially necessary labour-time with the labour embodied in the means of subsistence that represent workers’ customary standard of living. However, with regard to the essential workings of the capitalist system which preclude this static framework, Marx’s transformation procedure is extremely accurate. This procedure is inherently dynamic and even more riddled with disequilibria for a major reason. Intra-capitalist competition expresses a secondary contradiction of the capitalist system. On the contrary, the formation of the value of labour-power and its transformed expression as wage touches upon capitalism’s fundamental contradiction: the capital-labour relation. The conflicts and the disequilibria generated from class struggle are much more grave than that of intra-capitalist competition.

"New Solution’s" definition of the value of labour-power takes an altogether different course. It discards the intermediation of a set of use-values (and their value) between necessary labour-time and money-wages and proceeds to link them directly. Money-wages (denominated through MEL) are equated immediately with socially necessary labour-time. Money-wages are taken from conventional statistics, multiplied by the value of money and equated with a part of the net product. This definition has the merit of sidestepping automatically the problem of the divergence of the value of variable capital from that of the means of consumption. Additionally, it appears to relate robustly labour-time with money-wages. Therefore, the transformation riddle is surpassed. Notwithstanding, the theoretical sacrifices are far heavier than an accurate volley in the transformation war.

Whereas Marx’s definition tracks the relations of determination which exist in capitalism through a sophisticated dialectical procedure, “New Solution” isolates and then juxtaposes arbitrarily just the first and the last moment of this procedure. This, even within the static framework of the transformation controversy, is extremely problematic. If money-wages (transformed by MEL) are directly and without any mediation equated to socially necessary labour-time - and, thus, to the value of labour-power - a number of significant problems emerge. First, the traces of relations of determination, that permeate Marx’s dialectical procedure, disappear. The value of labour-power becomes simply the wage
share of the net product. Additionally, “New Solution’s” conception of the value of labour-power ends up to a Smithian labour-commanded conception of value rather than one based on abstract labour. For the “New Solution” the value of labour-power is the living labour commanded by the money wage of the workers. This leads to the inability of grasping properly class struggle in production - over the division between necessary and surplus labour-time - as the foundation of the value of labour-power. Particularly, the effects of the extraction of relative surplus-value - which dominates the division between necessary and surplus labour-time - cannot be understood properly. Finally, “New Solution” fails not only to theorise correctly the value (of labour-power) - price (wage) relation but can also lead to a problematic wage theory (and this was again the case for certain “New Solution” scholars). By rejecting the mediation of a bundle of commodities, the wage is only distantly and weakly linked to production. The only other possible process of wage determination is through class struggle in the sphere of distribution. This process, however, leads to the operation of institutional arrangements and power relations. Its only weak link to production is that it is supposed that capital and labour struggle over the division of labour productivity gains between profits and wages.

**Labour embodied in consumption goods vs. labour commanded by wage**

MEL has already been criticised for leading to a Smithian labour-commanded perspective and for failing to grasp adequately changes in productivity. Whereas it grasps productivity changes on aggregate, it cannot grasp them when they apply unevenly between sectors. This problem becomes graver when it touches upon the determination of the value of labour-power. The basis of capitalism’s essential tendency to produce and extract relative surplus-value is productivity changes which take place unevenly between the aggregate level and Department II (i.e. the department of means of consumption). MEL fails dismally to capture this process. This is exactly the case on which Ricardo criticised Smith.

Furthermore, this labour-commanded conception of the value of labour-power leads to an identification of surplus-value with the living labour commanded by the existing mass of profit. Whereas this is logistically and algebraically correct, it inverts the relation of determination and, henceforth, lacks explanatory power. Instead of profit being the monetary form of surplus-value it is the latter that is a derivative of the profit share.

Shaikh A.-Tonak E. [(1994), p.179] have voiced a similar criticism. Replying to these Foley D. [(1997), p.21-22] argues that the “New Solution” is consistent with the Ricardian and Marxian position and does not follow the Smithian view. He maintains that according to Smith’s second definition the value of labour is identified as the amount of commodities (i.e. labour) that it can command on the market and not the amount of the bundle of commodities. In other words, it is the ratio p/w, where p is the money price of the commodity
and \( w \) the money wage rate. Then, he argues that the “New Solution” derives the MEL as the ratio of the value of the net product at market prices to the living labour expended and this does not involve the level of money wages. This may be partially true for the MEL, which is a ratio; although when speaking of the LEM (or the value of money) it is clearly true that it is labour-commanded. Moreover, “New Solution’s” definition of the value of labour-power - as can be seen from equations (6), (7) - is obviously labour-commanded since it is simply the wage share in the net product, and a share of the living labour generated in production. This share is determined according to the ratio of the money wage to the money price of the net product. Hence, this ratio is the amount that the value of labour-power can command out of the total living labour. In other words, if LEM is the command over the value of other commodities, “New Solution’s” value of labour-power denotes the command over the labour of others.

As a consequence of the above, the “New Solution” macroeconomic models are not able to explain the effect of productivity changes on the value of labour-power\(^{10}\). This is a major weakness for an approach which wants to analyse the empirical features of the capitalist economy, characterised as the latter is by continuous increases in productivity. According to Marx, a major historical feature of the capitalist mode of production is that technological change is the main means of capitalist competition and this is deployed mainly through the extraction of relative surplus-value (i.e. cheapening the value of wage goods). This is the driving force for changes in the composition of capital and subsequent changes in the whole circuit of capital.

Additionally, another problem that arises from “New Solution’s” macroeconomic models is that the process of income distribution cannot also be determined endogenously. The wage share is derived as the labour commanded by the money wages, but nothing in the model explains the level of money wages:

Rather than concrete labour embodied in commodities workers consume, the value of labour-power is a proportion of abstract labour performed. As the object of class struggle, it is conceded to workers in the form of wages in exchange for a unit of labour-power bought by capitalists. This division of abstract labour, or money value added, defines the rate of surplus-value for the economy as a whole, ipso facto determined by class struggle between workers and capitalists.

\[ \text{[Mohun S. (1994), p.402]} \]

Foley D. [(1982), p.43] also argues that:

\[ ^{10} \] It is indicative of this problem that some very interesting studies by “New Solution” scholars on the effects of productivity changes on wages leave aside the problem of the definition of the value of labour-power (e.g. Dumenil G.-Levy D. [(2000), p.9]) and also that they consider the real wage (Dumenil G.-Levy D. [(2000), p.9,18-19] rather than a MEL denominated money wage.
Workers in capitalist society do not bargain for, or receive, a bundle of commodities as payment for the labor power, they receive a sum of money, the money wage, which they are then free to spend as they wish...

It is evident from the above - but also many other references [Foley D. (1986b), p.41, Lipietz A. (1982), p.75] - that the wage share is determined through distributional class struggle which operates as a black box. This can easily lead to substitute Marx’s theory of wages with one very similar to that of Carey: wages rise and fall in proportion to the productivity of labour. This view - very popular within theories of the “Golden Age” and the post-W.W.II “capital-labour accord” - is closely related to the already mentioned inability to conceive properly relative surplus-value.

The classical Marxian perspective follows a different route. Like all other commodities, the bundle of wage goods (reflecting the value of labour-power) can become cheaper as a result of increases in labour productivity. However, unlike other commodities, workers (the bearers of the commodity labour-power) may turn back and claim a share of the productivity gains. Capital is able to extract relative surplus-value when productivity gains in the wage goods sector are accompanied by a constant or rising but lagging behind real wage, which result in a rising rate of exploitation. For Marx (1982, p.705), increasing productivity of labour is accompanied by a cheapening of the worker (i.e. a higher rate of surplus-value), even when real wages do rise, because the latter never rise in proportion to the productivity of labour. As Rosdolsky R. [(1977), p.290] points out, "if this were to be the rule, the rate of surplus-value could never rise -and hence the production of "relative surplus-value", and capitalism itself, would become an impossibility".

This Marxian thesis begs a crucial question: could labour (either from the outset of capitalism or after certain structural transformations which lead to a new capitalist stage) fight for regular productivity bargaining? In this case, the extraction of relative surplus-value would become an impossibility and the determination of wage should follow a different from the Classical route. In our opinion, Marx understood correctly that, in the long-run, capital is structurally empowered to extract relative surplus-value, whereas labour is equally structurally disadvantaged to bargain regularly and accurately for productivity gains.

Labour productivity constitutes the source of social wealth. Therefore, the struggle over the division of social wealth between profits and wages has to do with the way labour productivity increases are divided. This fight has certain degrees of freedom but it is not structurally unconstrained. There is a range of numerical values within which workers” struggle can get back part of the productivity gains without endangering fatally, at least in the long-run, capitalist accumulation. This protracted war is characterised by big strategic confrontations, day-to-day skirmishing and periods of truce. The first establish a broad balance of class-power, favouring the one of the two main antagonists, the working or the
capitalist class. Periods of truce are characterised by the explicit or implicit acceptance on all sides of a status quo. Notwithstanding, even this is subject to small-scale day-to-day skirmishes where additional ground is gained or lost. However, in this conflict capital has the ability to conceive its value dimension, because it participates not only in production but also in exchange; whereas labour participates only in production and has, therefore, only a mediated and ex post conception of the value dimension of labour productivity increases. The necessary mediating link is the bundle of consumption goods that represent working-class’ living standard, compared to the total mass of the social product. For this reason capital is structurally empowered to extract relative surplus-value. Consequently, wages are not formed according to the sharing of labour productivity gains between capital and labour because the latter is structurally handicapped in conceiving in advance this dimension and also because this would make capitalism non-viable in the long-run.

For a sharing of productivity theory of wage to be sustained, a theoretical detour is necessary. If wage reflects labour productivity increases, then the working-class must have the ability to conceive value changes. Since the only market that workers participate is the sui generis labour-power market, they cannot conceive this dimension. This can only be done through specific institutional structures (trade unions, state bodies etc. equipped with scientific agencies). Then distributional struggle takes place on the basis of and within these structures. Its outcome establishes a wage (a “going rate”), which represents an amount of total abstract labour-time. However, this division has no direct link to class struggle in production and the division between necessary and surplus labour-time. It takes place ex post and probably on the basis of past historical experiences. What each side will gain is based not on its position within production but on its general political and social power. Therefore, power relations, instead of being derived from production relations, assume an explanatory primacy over them. On the contrary, Marx’s conception has the merit of establishing a firm link between production and exchange. Distributive class struggle and the broader class balance are founded on class-struggle in production. This is an accurate conception of the essential workings of the capitalist system. Hence, it remains only the second question: is there a turning point at some stage of capitalist development, where structural transformations led to a different process of wage formation?

Another clarification is necessary at this point. All the “New Solution” writers by no means unanimously accept the above mentioned theoretical detour. The present consensus stops to the definition of the value of labour-power and its determination by the price level and labour productivity. It is only present in those writers that come from (e.g. Lipietz) or have a relation to (e.g. Mohun) the Regulation Theory. It is the latter that argued that in the Fordist era wage formation has ceased to be determined on the basis of a bundle
of consumption goods and it is linked to labour productivity increases\textsuperscript{11}. This view has been both theoretically and empirically refuted [Brenner R.-Glick M. (1991), Mavroudeas S. (1990)]. In theoretical terms, capitalist development - and particularly the extraction of relative surplus-value - is not possible under such circumstances. Empirically, the so-called “capital-labour accord” has not been verified neither for the post-W.W.II period nor for any other era.

Is labour-power a commodity?

Certain “New Solution” writers find it necessary to supplement their definition of the value of labour-power with the explicit rejection of the commodity nature of labour-power [Lipietz A. [(1985), p.154], Foley D. [(1982), p.43], Mohun S. [(1994)]]. It is true that this position is not unanimously adopted within “New Solution”. Dumenil has never alluded to that and Foley - in subsequent works [Foley D. (1986a)] - has attempted to keep a guarding distance. On the other hand, the rejection of the commodity-nature of labour-power provides a firmer ground for “New Solution’s” definition of the value of labour-power. Additionally, it is supposed to offer a reply to Samuelson’s P. [(1982)] well-known argument that if labour-power is a commodity similar to all others then it does not deserve a special status.

This defence against Samuelson’s argument has been firstly proposed by Bowles S.-Gintis H. [(1981), p.7-8] who maintained that labour-power’s special status derives from the fact that it is the only production input that has a non-commodity nature. Lipietz (1985) endorses the Bowles-Gintis thesis, but he stops short of breaking his links with the Labour Theory of Value by warning against extending this thesis to the point of the abandonment of the labour substance of value. Additionally, according to Lipietz, this rejection opens the way to analyse the MEL and its “value” as socially constituted. Foley A. [(1982), p.42], also, reiterates the argument against Samuelson, and explicitly links it to the ability to derive the second invariance condition.

However, this support to Marx’s Labour Value theory does little justice to it, since it attempts to confront Samuelson’s critique on its own ground, disregarding the fact that the

\textsuperscript{11} For Regulation the workers’ consumption was not commodified in the pre-Fordist regimes, irrespectively of whether wage was linked or not to a bundle of commodities. In contrast, in Fordism, a social norm of consumption is supposed to be created which reflects a form of social wage divorced from the actual performance of labour-power in production and the gearing of it to a bundle of commodities. In this sense the value of labour-power, for Regulation, is equally the amount of commodities that the wage share can buy. This wage share is determined through collective bargaining, which is understood as class struggle in distribution that takes place via institutional arrangements. Its only link to production is through the alleged linkage of wages to productivity increases.
latter misrepresents Marx’s view. Samuelson, based on the well-known premises of the neo-classical theory of productive factors, believed that Marx considered labour-power as a normal-type commodity. Therefore, he missed the special character of this commodity. For Marx labour-power is a special commodity because its deployment (labour) - unlike other production inputs - is the active creator of human social wealth. This also constitutes labour-power’s value-augmenting capacity. Therefore, every production process and every other commodity should be accounted (and exchanged) according to its labour content. On the other hand, the labourer (the bearer of labour-power), in the capitalist system - and unlike pre-capitalist systems - is a free person. Thus, the acquisition of his capacity by the proprietor of the means of production can be done only through the typical market mechanism of the capitalist system. That is through the sale of his labour-power as a commodity. To attempt to establish the exceptional character of labour-power by denying its commodity nature opens the floodgates for the rejection of the Labour Value Theory - as Samuelson was very well aware of. If the Labour Theory of Value is rejected - or weakened - in this way, then a theory of capitalist exploitation has to recourse to the theoretically and empirically problematic terrain of power relations (as Bowles and Gintis have done).

Two lines of justification for the rejection of the commodity nature of labour-power have been proposed. A broader and more general one argues that labour-power is not a commodity since it is not (re)produced through a capitalist labour process and the rules of capitalist exploitation, competition and the formation of a uniform rate of profit do not apply to it. The second and more historically qualified version is based on the empirical belief that the structure and the determinants of working-class” consumption has changed radically after W.W.II.

Mohun S. [(1994)] provides the fullest account of the first line. Labour-power is not considered as a commodity since it is not capitalistically produced. He argues that the classical definition of the value of labour-power (as a bundle of wage-goods) is valid only in a special case. Since labour-power is a commodity, sold in the market for its exchange-value, which in turn is spent on means for subsistence, then the value of the subsistence commodity bundle will be equivalent to the value of labour-power, and can therefore be taken as its measure only when prices are proportional to values. Instead, he proposes what he considers as the more general case. Labour-power is not a capitalistically produced commodity. Its reproduction may be conceived to take place through a labour process which (re)produces people, but the relations involved are not class ones. There is no private property in the means of (re)production from which non-possessors can be excluded, the labour involved is not wage labour, and (re)production is neither production for sale nor production for profit. Therefore, labour-power does not enter the world of commodities and does not operate according to its rules (average rate of profit etc.). Moreover, since it does not enter the world of commodity equivalence and since prices are
not proportional to values (as a rule), then the value of the bundle of wage-goods does not coincide with the value that the wage can purchase (or command). As a result - on the basis of the rejection of the commodity nature of labour-power - the wage is separated from the value of labour-power, in the classical sense. Instead, it is determined on the aggregate level (in the division of the net product between wage and profit share).

Mohun’s argument that labour-power is not capitalistically produced is not sufficient to establish the non-commodity nature of labour-power. As we have argued, the reproduction of labour-power entails the use of capitalistically produced consumption goods. This bundle of commodities has a value and is the equivalent of the value of labour-power. This equivalent is a set of produced commodities whose production involves different compositions of capital, having to earn the economy-wide rate of profit, and whose output values (and input values). Therefore the transformation of its value into prices of production is necessary. Then, the problem of non-proportionality between necessary labour-time and labour-time embodied in consumption goods emerges. The amount of labour-time accruing to workers does not necessarily coincide with the amount expended for the production of their subsistence goods. In this crucial transformation capital’s structural advantage to extract relative surplus-value is founded. The fact that necessary labour-time is not directly validated through the competition process (therefore, it cannot be transformed to prices of production) is a fundamental aspect of this process. Finally, wage (the money price of the value of labour-power) usually deviates even more not only from necessary labour-time but also from the transformed value (prices of production) of workers” consumption bundle, since the conditions of formation of the general equivalent (and thus the value of money) as well as short-term fluctuations of supply and demand in the labour-power market affect it critically. Mohun’s approach collapses this two-dimensional dialectical transformation to a one-dimensional one. He concentrates on the problem of disproportionality between labour-time embodied in workers’ consumption bundle (transformed in prices of production terms) and the labour-time that can be commanded in the market by their wage. Then he attempts to bypass this riddle by simply divorcing them under the auspices of the rejection of the commodity nature of labour-power. This may avoid the formalistic strictures of the "transformation problem" but it fails to conceive properly the internal workings of the capitalist system. Compared to the Marxian definition, this theoretical strategy necessarily leads - by jettisoning the commodity definition and the intermediation of the bundle of consumption commodities - to a theory of conditions of work and wages exclusively in terms of power relations as such.

The second line of supporting the non-commodity nature of labour-power (as can be found in many works by Lipietz) is based on the Regulationist historicist perspective. According to it, workers” consumption has ceased to be confined to a mere bundle of subsistence goods and not only covers a wider range of commodities but it is also internally
diversified (different segments of the working-class have different consumption habits). Additionally, working-class social power has increased and instead of being restrained to the set of subsistence goods it struggles with capital for sharing the productivity gains. For this reason the value of labour-power has to be divorced from any set of commodities and, moreover, to lose its _special status_ commodity-nature that Marx attributed to it.

We have already dealt with the view that wage is formed on the basis of a distributional class-struggle over productivity gains. It is however interesting to study the rest of the Regulationist argument. Its basis is the belief that before Fordism workers’ consumption was not commodified. Only with the advent of mass production (which they equate erroneously with Fordism and locate at the beginning of the 20th century) emerged the necessity of a mass market for capitalist commodities and the so-called social consumption norm was created. This, quite popular in the 1970s and 1980s view, is theoretically and empirically false. If workers have non-market access to the means of subsistence [i.e. workers’ consumption is not commodified], or they own resources which enable them to produce commodities on their own account to exchange, via money, for means of subsistence [i.e. workers or the members of their extended family operate as petty-commodity producers as well] then there is no social condition which would force people into the market to sell the only saleable thing they posses, their capacity to work. Such a system is certainly not capitalism. Empirically, Regulation Theory has failed to prove that a radical change took place in workers’ consumption after the 1920’s which would justify the mass market hypothesis [Mavroudeas S. [(1990), ch.III], Mavroudeas S. [(1999c)], Brenner R.-Glick M. [(1991)].]

The additional point made by Regulation is based on stylised facts - i.e. a loose and incoherently conceived empirical believes. Namely, that, from the Fordist era and onwards, workers’ consumption is not confined to a specific bundle of commodities but expanded to a wider range of goods. This was supplemented with the equally problematic belief that in post-Fordism wage-earners’ consumption is diversified, on the basis of status relations and conspicuous consumption trends, that not only a unified bundle of consumption goods does not exist but also that the new almost post-modernist fragmented consumption patterns have even less relation to social relations and struggles in production. The rejection of the commodity-nature of labour-power on these grounds is grossly unjustified. The diversification of the range of consumption goods that different segments of the working-class consume is not a new thing and certainly predated the emergence of the alleged Fordist era. However, the representation of the value of labour-power by the labour-time embodied in a single bundle of consumption commodities is made for analytical simplicity. There are no theoretical or empirical problems, for Marxist theory, if it is substituted by a range of consumption commodities.

Mohun S. [(1994), p.397], also, rejects the Regulationist argument exactly on this ground.
As we have already argued, Marx’s theory of the value of labour-power overcomes a number of deficiencies of the Ricardian perspective. Marx understood - and even defended against Malthus – Ricardo’s “beast of burden” approach [Marx K. (1969), p.119]. According to the latter the cost of maintenance of men and the cost of manufacture of any commodity are on the same plane. Marx defended the Ricardian approach on two levels. First, that the equation of men to things is conducive to capitalism. Second, he praised Ricardo’s intellectual honesty, since the latter adopted this position not because of the particular interests of the bourgeoisie but because it supported the general functionality of the capitalist system. However, the Ricardian approach is marred by technological determinism. For Ricardo the working class lacked - and it was not probably necessary to acquire - the social power to bargain for any other part of the social product apart from its necessary means of subsistence. Hence, class struggle took place not in production (between capital and labour) but in distribution between capital and land-owners. Furthermore, the bundle of subsistence goods was determined on the basis of physical-technical conditions. Bortkiewicz has formalised the Ricardian argument by technologically determining a basket of consumption goods; an approach which has been branded “labour-feeding technology approach” or “fodder method” [Sekine T., (1997), p.23]. Marx, on the other hand, maintained that workers are in a position - and indeed they should - to struggle for a better sale of their labour-power. The outcome of this struggle is the creation of the value of labour-power, which apart from the physical dimension has a historical and social dimension as well. Class-struggle, in both production and distribution, affects both the long-run value of labour-power and the short-run fluctuations of its price (wage). Consequently, the Marxian perspective has far less problems with the variations in the value and the price of labour-power and it is better suited to accommodate internal differentiations of workers” consumption pattern.

Last, but not the least, the post-fordist assertions about an economy dominated by a demand-side which is fragmented beyond the point of return have not been empirically proved. Additionally, they lead to a completely different theoretical framework than that of typical Regulation Theory.

IV. VALUE, THE METHOD OF DIALECTICAL ABSTRACTION AND ECONOMIC ANALYSIS

Methodologically, the concept of abstraction employed by the “New Solution” in identifying money as the representative of abstract labour is highly problematic. The “New Solution” adopts Marx’s definition of money as the representative of value but ascertains the nature of this representation by a mere division of the total value by the total price of the net output. This is a direct, unmediated, and ideally abstract representation of value by money.
Marx’s own analysis, however, stresses precisely the opposite: the representation of value by money is indirect, mediated, and a real abstraction.

On the contrary, “New Solution” collapses this process into the MEL; which cannot capture either its complexity or the many levels of its determination. Money is derived from abstract labour and value on the aggregate level, but this derivation is implicitly refuted in its constituent parts (individual commodities and production processes), where money is posited as the main determinant. This treatment of the relation between value and money derives from a perspective astonishingly similar to that of Franklin B. [(1836)]. As it is well known, Franklin was one of the first theorists that proposed labour as the measure of value rather than the precious metals. However, Marx K. [(1987)] has attacked Franklin’s theory of abstract labour for failing to distinguish between concrete and abstract labour and, hence, for not being able to understand and to establish their relationship. As a consequence, Franklin had mistaken money as the direct incarnation of abstract labour:

Franklin, on the contrary, considers that the value of shoes, minerals, yarn, paintings, etc., is determined by abstract labour which has no particular quality and can thus be measured only in terms of quantity. But since he does not explain that the labour contained in exchange value is abstract universal social labour, which is brought about by the universal alienation of individual labour, he is bound to mistake money for the direct embodiment of this alienated labour. He therefore fails to see the intrinsic connection between money and labour which posits exchange value, but on the contrary regards money as a convenient technical device which has been introduced into the sphere of exchange from outside.


This problematic understanding of dialectical abstraction and the subsequent “violent” identification of value with money create significant problems for the “New Solution” analysis. Instead of creating a macroeconomic model evolving on several levels and employing an array of levels of abstraction, it collapses it to an identification of values with prices with MEL in the role of deus ex machina that enables the commensurability between values and prices. The same holds for the value of labour-power. “New Solution’s” definition attempts to link directly and without the intermediation of a bundle of consumption goods necessary labour-time to money-wages. Thus, in practice, there are no levels of abstraction.

In short, the “New Solution” conception of abstraction, employed to define abstract labour and directly to express it as money, lacks what may be called dialectical rigour. It resembles Ricardo’s “violent abstractions” - as Marx characterised them - in the sense that Ricardo also attempted to relate values to prices directly and in an unmediated way. Whereas Ricardo employed the distinction between form and essence and proceeded to
discover essence through abstraction, his abstractions were "violent" [Zeleny J. [1980), ch.3]]. Ricardo, by not considering the social dimension, limited his perspective to the determination of the magnitude of value (i.e. the quantitative aspect of value). Additionally, he could not clarify the distinction between the form and the substance of value. Therefore, he did not distinguish exchange-value and value, but used both terms almost synonymously in contrast with use-value. Henceforth, he attempted to relate prices of production almost directly and unmediated to values. The difference between Ricardo’s “violent abstractions” and those of the “New Solution” is that the former commence with labour whereas the latter commence with money.

Consequently, the “New Solution” approach suffers from the same misconception - though from the opposite side - as the neo-Ricardians understanding of the relationship of form and essence. It searches for a direct and unmediated form of existence of abstract labour. However, instead of a technically defined (by the technical coefficients of production) invariable measure of value - as the neo-Ricardian standard commodity - it attempts to establish a "social" quasi-invariable measure of value in the form of MEL. Neo-Ricardian physicalism tends to be substituted by institutionalism as the basis for the social determination of money and the value of labour-power (and subsequently its price, the wage). The very same empiricist search for an unmediated tangible form of existence of abstract labour is closed in the one case with the recourse to production and technicism and in the other case with the recourse to money and circulation. In the first case the social aspect is absent from production and is added artificially in distribution. In the second case the social aspect is present but through the disfiguring lenses of circulationism and possibly institutionalism. There is no presence - and primacy - of the sphere of production as expressed by the labour performed - and the class struggle associated with it - within it.

“New Solution’s” inability to recognise different levels of abstraction makes impossible to recognise properly significant facets of the operation of the capitalist system. Other elements (such as the value of money and its peculiar value of labour-power) are posited at the wrong level of abstraction (immediately in the beginning) and without the necessary relations of determination (their derivation from money-commodity and a bundle of consumption goods respectively). And others (such as the extraction of relative surplus-value and its repercussions) cannot be grasped and are missing completely. Last, but not the least, the resort to a Smithian labour-commanded perspective rather than empowering it weakens the Labour Theory of Value.

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