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Ricardo's and Marx's Conception of Absolute and Relative Value: A Critical Overview

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Abstract: This paper examines Ricardo's and Marx's views on absolute and relative value, focusing on the parallels and differences in their analysis of labor values. Next, it discusses Marx's ingenious but incomplete "solution" to the problem of how it is possible for a rigorous and consistent labor theory of value to operate in a competitive capitalist economy. It then gives an overview of Sraffa's seminal contribution to the problem of constructing an invariable standard of value which meets Ricardo's exacting criteria, as well as resolving Marx's transformation conundrum—one which involves abandoning the labor theory of value. The latter comes at the heavy price of discarding those qualitative and dialectal (dynamic) elements in Marx's class-based and historical approach which, more so than the classical (surplus) approach, make it such a valuable tool for understanding the social (power) relations of capitalism, as well as cutting through its ideological obfuscations.

Keywords: Absolute value; constant capital; fetishism; invariable standard; labor theory of value; prices of production; profit; relative value; surplus-value; standard commodity; value; variable capital.

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INTRODUCTION

The objective of this paper is to provide a critical (and historical) explanation of Marx's and Ricardo's views on the determinants of absolute and relative value in terms of the labor theory of value. In so doing, the paper tackles several theoretical and practical problems associated with the construction of a standard (composite) commodity capable of fulfilling Ricardo's exacting measurement criteria, viz., one which is independent of the changes in the relative prices of the goods and is thus capable of accurately measuring changes in their absolute value; and secondly, one that always and everywhere requires the *same* amount of labor to produce. Apropos, Ricardo

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writes: "Mr. Malthus justly complains of gold and silver as being variable commodities, and therefore not fit for a measure of real value[1], for times distant from each other. What we want is a standard measure of value which shall be itself invariable, and therefore shall accurately measure the variations of other things" (Ricardo, 2004b: p. 29). Ricardo, as discussed below, struggled with this problem all his life, including in his unfinished manuscript on *Absolute Value* written a few weeks before his death, but fell short in his efforts despite providing a cogent intellectual map of how, in general, such an invariable measure of value could be constructed. Marx also attempted to erect such a standard in *Capital III* via his analysis of how the forces of competition led to systematic deviations of labor values from prices of production, except in those industries or sectors in which, by accident, the organic composition of capital is equal to the economy-wide average — there, he argued, prices of production or "natural prices" would equal labor values. However, his solution was incomplete (and incorrect), so it had to await the seminal contributions of Bortkiewicz, Seton, Morishima, and ultimately Sraffa to be resolved, but not without sacrificing the qualitative relation and the dialectal (dynamic) elements in Marx's class-based and historical approach which make it so useful for understanding the social (power) relations of capitalism.

The paper is organized as follows: It begins by presenting Marx's and Ricardo's views on relative and absolute value, focusing on the parallels and differences in their analysis of labor values. Next, it delves into a more detailed exegesis of Ricardo's views on absolute and relative value considering his draft and unfinished manuscripts published towards the end of his life. This is followed by a discussion of Marx's ingenious but incomplete "solution" to the problem of how it is possible for a rigorous and consistent labor theory of value to operate in a society which is no longer characterized by simple commodity producers (Adam Smith's "early and rude state of society"), that is, in a competitive capitalist economy. The penultimate section discusses Piero Sraffa's seminal contribution to the problem of constructing an invariable standard of value, one which meets the first requirement of Ricardo's exacting criteria above, as well as resolving Marx's transformation conundrum; the latter involves discarding the quantitative labor theory of value altogether and proceeding with a prior bundle of commodities in the composite (balanced) industry whose composition of output (gross as well as net) is the same as in its means of production. As mentioned above, this original and influential solution to the "transformation problem" does not come without a price - no pun intended

- in terms of giving up those qualitative, dialectical, and historical elements that make the labor theory of value a useful analytical tool for understanding the social relations of the capitalist mode of production. The conclusion summarizes the major findings of the paper.

ABSOLUTE AND RELATIVE VALUE

From the outset it is important to note that Marx, more so than Ricardo, based his analysis of what determines the value of a commodity on the quantity of socially necessary labor needed to produce or acquire it (see Wolff, 1984). By the latter, Marx means no more time than is needed on an average to produce a given commodity (TV's or smart phones) under the standard technical conditions of production in that sphere of production. The magnitude of the product's positive or absolute value,[2] in turn, regulates its relative or exchangeable value which, through distribution, resolves itself into profit, wages, and rent. In Marx's view, the relative value between two commodities does not tell us the whole story because *absolute* changes in the value of both commodities may take place while their relative value remains the same, e.g., suppose it takes two hours of socially necessary labor to produce both a pair of shoes and one coat, then one pair of shoes will exchange for one coat. Now suppose that because of an improvement in the productivity of labor, it takes only one hour of socially necessary labor to produce each commodity, then, again, one pair of shoes will exchange for one coat even though the absolute value of each commodity in terms of socially necessary labor has decreased by one half. Changes in the relative value of a given commodity can also occur when its absolute value changes in terms of embodied labor, while the value of the other commodity remains constant. That is, the relative value of shoes, expressed in terms of coats, rises and falls directly as the value of shoes, *ceteris paribus.* Contrariwise, let the value of a pair of shoes remain constant while the value of one coat, its equivalent in the exchange equation, varies in value. In this case, the relative value of a pair of shoes expressed in terms of coats, rises and falls inversely as the value of one coat. Finally, the relative value of commodities changes when the labor-time required to produce both commodities vary in the same direction but at unequal rates, or in opposite directions (e.g., one pair of shoes doubles in terms of labor time, while one coat decreases by half in terms of labor time). That is, simultaneous variations in the absolute value of a commodity and its relative value need not correspond in magnitude. The problem of determining the absolute or real value of a commodity apart from its relative value is considerably more difficult to resolve in

practice as discussed below in the section dealing with the transformation of labor values into prices of production or "natural prices." That is, to discern which commodity is responsible for the change in relative or exchangeable value, we need an invariable measure of value which will enable us to measure the absolute or real value of commodities independent of their exchange or relative values. Ricardo, to his credit, even as early as the writing of the first edition of the *Principles*, clearly understood the inherent difficulties involved in finding or constructing an invariable standard as evinced by his remarks in Section VI of his Chapter *On Value* (Ricardo, 1977: pp. 43-44), "Of such a measure it is impossible to be possessed, because there is no commodity which is not itself exposed to the same variations as the things the value of which is to be ascertained; that is, there is none which is not subject to require more or less labour for its production." In this regard, he criticizes Malthus's use of the "value of labour" as a standard measure of value, viz., the idea that the value of a commodity will rise or fall in terms of the amount of labor it can command in the market. He writes in no uncertain terms: "Mr. Malthus justly complains of gold and silver as being variable commodities, and therefore not fit for a measure of real value … And what does Mr. Malthus fix as an approximation to this standard? The value of labour. A commodity shall be said to rise or fall accordingly as it can command more or less labour. Mr. Malthus then claims for his standard measure invariability! No such thing; he acknowledges that it is subject to the same contingencies and variations as all other things" (Ricardo, 2004b: pp. 39-40).

For Ricardo, as correctly observed by Sraffa (2004a: p. xli), the problem which mainly interested him was "finding the conditions which a commodity would have to satisfy in order to be invariable in value—and this came close to identifying the problem of a measure with that of the law of value: 'Is it not clear then that as soon as we are in the possession of the knowledge of the circumstances which determine the value of commodities, we are enabled to say what is necessary to give us an invariable measure of value?'" In other words, Ricardo subscribed to the view that to his theory of value as determined by embodied labor "there corresponds an invariable measure in the shape of a commodity produced by a constant quantity of labor." He elaborates on the second requirement for his invariable measure of value further in both his draft and unfinished manuscripts on "Absolute Value and Exchangeable Value," written towards the end of his life. For example, in his unfinished manuscript he suggests that "It appears then that any commodity always produced by the same quantity of labour, whether

employed for a day a month a year or any number of years is a perfect measure of value, if the proportions into which commodities are divided for wages and profits are always alike, but that there can be no perfect measure of the variations in the value of commodities arising from an alteration in these proportions, as the proportions will themselves differ as the commodity employed for the measure may be produced in a shorter or longer time" (Ricardo, 2004e: p. 404). That is, Ricardo surmised correctly that the commodity produced by the same quantity of labor would also be subject to variations on account of two other causes, viz., the different proportions of fixed to circulating capital required to produce it as well as other commodities, and secondly, "on account of the different degrees of durability of the fixed capital employed on it, and the commodities to be compared with it"; or, what amounts to the same thing, the time it takes the standard commodity to be brought to market and the commodities to be compared with it. That is, unless commodities were produced with the same proportions of fixed to circulating capital and durability of capital, it was not only possible but likely for relative prices to change as a result of a rise or fall in real wages even though no change had taken place in the quantity of direct or indirect labor required to produce commodities.

Ricardo thought that "this cause in the variation of commodities is comparatively slight in its effects," and proposed using gold as an approximation to a standard measure of value because he was of the opinion that this commodity was produced with a proportion of fixed capital to labor, as well as durability of fixed capital, which was "nearest to the average quantity employed in the production of most commodities" (Ricardo, 2004a: p. 45). He then goes on to ask of his proposed standard commodity, "May not these proportions be so nearly equally distant from the two extremes, the one where little fixed capital is used, the other where little labour is employed, as to form a just mean between them? If then, I may … be possessed of a standard so nearly approaching to an invariable one … that I shall be enabled to speak of the variations of other things, without embarrassing myself … with the consideration of the possible alteration in the value of the medium in which price and value are estimated" (Ibid., p. 46). As indicated above (and elaborated further in the next section), Ricardo would return to this vexing problem towards the end of his life, but without much success. A partial and original solution to the search for an invariable standard of value was provided by Marx in the third volume of Capital, but it would have to await the seminal work of Piero Sraffa (1960), more than one hundred years later, for a theoretically rigorous and complete construction

of a standard (composite) commodity capable of fulfilling some of Ricardo's exacting measurement criteria, viz., one which is independent of the changes in the relative prices of the goods that go into the construction of the standard commodity (net output of the composite industry).

Despite the shortcomings in Ricardo's labor theory of value, Marx commended him for criticizing Adam Smith's "adding-up" theory of value which suffered from a number of unresolved problems and contradictions, not the least of which because it made the revenues of workers and capitalists (wages and profit) along with the rent of the landlord determinants of the value of commodities (see Smith, 1976; Marx, 1885: pp. 241-50). Ricardo, by developing a consistent theory of value based on embodied labor, argued that it is the size of the product's value which is the primary magnitude, and it then resolves itself into wages and profit; rent, as is well known, is price-determined in the Ricardian system and not a component part of the value of the product on the least productive or marginal land. For Marx, as opposed to Ricardo, rent (including absolute rent) is a socially (historically) determined economic category that is modified from previous modes of production, e.g., feudalism, and conforms to needs of the capitalist mode of production. The source of rent (and profit) is surplus-labor in the form of surplus-value, while the natural fertility of the soil is one of the conditions determining the productivity of labor in terms of use-values as alluded to above—it is the *basis* but not the source of rent (see Marx, 1894: p. 646).

It should also be noted that Ricardo, like his contemporaries, devoted an important part of his analysis to the determination of the relative or exchange value of a commodity; that is, he believed that the relative values of different goods are determined almost exclusively by the *relative* quantities of labor time embodied in them. He emphasizes this point by warning the reader in his section entitled, *On an Invariable Measure of Value* as follows: "I have not said because one commodity has so much labour bestowed upon it as will cost £1000, and another so much as will cost £2000, that therefore one should be of the value of £1000, and the other of the value of £2000; but I have said that their value will be to each other as two to one, and that in those proportions they will be exchanged; it is of no importance to the truth of this doctrine whether one of these commodities sells for £1100 and the other for £2200, or one for £1500 and the other for £3000; into that question I do not at present inquire" (Ricardo, 1977: p. 29). Marx, as discussed above, thought that socially necessary labor time determines the *absolute* value of goods which, in turn, regulates their relative values in competitive capitalism.

Although Ricardo's contribution represented a significant advance over Adam Smith in terms of advancing a more coherent labor theory of value, he was unable to distinguish between the value of labor-power (a stock concept) and labor (a flow concept), and thus confused factors which affect the rate of surplus-value (s/v) with those that determine the rate of profit, p'=(s/c + v), viz., the surplus-value (s) on the flow of advanced capital in the form of constant (c) plus variable capital (v). He also erroneously thought that the "law of value" operated *directly* under capitalism but with important modifications as previously discussed. Marx, on the other hand, argued that, under competitive capitalism, commodities no longer sold at their simple labor values, but at their prices of production (Ricardo's "natural prices") which *differ* from labor values both in form and magnitude. Ricardo, along with the other classical economists, viewed these natural prices as the "ultimate reality or center of gravity," and they were determined, in the long run, by a uniform profit markup over the cost of production. Marx, according to Wolff, believed that, despite making a similar distinction between appearance and reality in terms of their analysis of fluctuating market prices and the natural prices towards which they gravitated, Ricardo and the classical economists did not go deep enough and thus "failed to penetrate the inner essence of profit as surplus value" (Wolff, 1984: p. 128; Shoul, 1974: pp. 454-57).

RICARDO'S PREOCCUPATION WITH ABSOLUTE VALUE

Notwithstanding his emphasis on the relative or exchange value of commodities, Ricardo, as noted, had always been interested in the positive (real) or absolute value of commodities; an interest or preoccupation which, towards the end of his life, became more pronounced as evinced by his detailed writings on the matter. Let us turn to a selected exegesis of his main works on the topic. As noted, in Section VI of his Chapter *On Value* he grappled with a measure of the absolute value of commodities independent of their exchange or relative values (see Meek, 1975 [orig., 1956]). He also addressed the topic in his *Notes on Malthus*, written during 1820 and finished by August 16th of that year, where he remarks that "He [Mr. Malthus] proves that the quantity of labour is not a perfect measure of value; but what are its deviations from a perfect measure on account of the circumstances which he mentions? –if they are slight, as I contend they are, then we are still in possession of a measure tolerably accurate, and in my opinion more nearly approximating to truth, than any that has been yet proposed. Mr. Malthus's proposed measure has none of the qualities of a

measure of value, the imperfections on the score of variability which he himself attributes to it, are greater than any which he imputes to the one which I propose" (Ricardo, 2004c: p. 66). But it was the discovery of his draft and unfinished manuscripts both entitled, "*Absolute Value and Exchangeable Value*," and a series of letters between him and political economists such as John McCulloch, James Mill, Hutches Trower, and Thomas Robert Malthus, which give the greatest insights into his thoughts on this difficult topic (see Ricardo, 2004c: pp. 398-412).

For example, in his draft manuscript on "*Absolute and Exchangeable Value*" he rhetorically asks himself, "I may be asked what I mean by the word value, and by what criterion I would judge whether a commodity had or had not changed its value. I answer, I know of no other criterion of a thing being dear or cheap but by the sacrifices of labour made to obtain it. Everything is originally purchased by labour — nothing that has value can be produced without it, and therefore if a commodity such as cloth required the labour of ten men for a year to produce it at one time, and only requires the labour of five for the same to produce it at another it will be twice as cheap" (Ricardo, 2004c: p. 397). He makes a similar pronouncement in his unfinished manuscript where he refers to the *second requirement* of his invariable measure of value, viz., "such a standard is to be found in the labour of men. The average strength of a thousand or ten thousand men it is asserted is always nearly the same, why then not make the labour of man the unit or standard measure of value?" (Ricardo, 2004c: p. 402). In this connection, Trower, in a letter dated, June 24th, 1821, raises doubts about Ricardo's definition of exchangeable value as being measured by the labor expended upon a commodity and argues that the term value refers only to the relative value of commodities and cannot possibly refer to the positive (real) or absolute value of commodities because, "If there were no exchange of Commodities they would have no *value*. They would, of course, retain their *use*; but they could not be said to possess *value*; which implies the *worth* of one thing estimated in some other things" (Ricardo, 2004d: p. 394). He goes on to add "… that the labour, which a commodity can *command* is what actually constitutes its *exchangeable* value." To which Ricardo replies in a letter dated July 4th, 1821, the following:

> I do not, I think, say that the labour expended on a commodity is a measure of its exchangeable value, but of its positive value.[3] I then add that exchangeable value is regulated by positive value, and therefore is regulated by the quantity of labour expended. You say if there were no exchange of commodities they could have not

> value, but if I am obliged to devote a month's labour to make me a coat, and only one weeks labour to make a hat, although I should never exchange them, the coat would be four times the value of the hat, and if a robber were to break into my house and take part of my property, I would rather that he took 3 hats than one coat. It is in the early stages of society, when few exchanges are made, that the value of commodities is most peculiarly estimated by the quantity of labour necessary to produce them, as stated by Adam Smith (Ricardo, 2004e: p. 2).

Ricardo, with textbook precision, proceeds to take apart Trower's definition of exchangeable value in terms of the labor (labor-power) it can command in the market as follows:

> I confess I do not rightly understand what meaning you attach to the words "exchangeable value" … A yard of super-fine cloth we will suppose can command a month's labour of one man, but in the course of a year, from some cause, it commands only a fortnight's labour of one man, you are bound to say that the exchangeable value of cloth has fallen one half. You are bound to say this whether the cloth be produced with a great deal less labour in consequence of the discovery of improved machinery, or the food and of the other necessaries of the labourer be produced with so much difficulty that wages rise and therefore labour rises as compared with cloth and many other things … Now the difference between you and me is this: in the latter case I should say with you that cloth has fallen to half its former exchangeable value and my proof would be that it would exchange for only half the former quantity of labour and of *all other things* [emphasis in the original], but in the other case I should say that cloth has not altered in exchangeable value because it will exchange for precisely the same quantity of all other things (Ricardo, 2004e: pp. 2-3).

From the above exchange with Trower, as well as numerous others with Robert Malthus, James Mill, and John R. McCulloch, it is apparent that Ricardo was searching for the *conditions* that an invariable standard of value would have to satisfy in order to measure the absolute value of commodities independent of their exchange or relative value, viz., a commodity whose production always required the same quantity of embodied labor.[4] He says so as much in a letter to Trower dated, Sept. 3rd, 1823: "To me it appears, that whatever is the measure of absolute value will be the measure of exchangeable value. Labour was originally that measure"

(Ricardo, 2004e: p. 383). He makes this point more carefully and explicitly in his unfinished manuscript, written during the last week of August, 1823, where he writes that,

> There can be no unerring measure of either length, of weight, of time or of value unless there be some object in nature to which the standard itself can be referred and by which we are enabled to ascertain whether it preserves its character of invariability, for it is evident on the slightest consideration that nothing can be a measure which is not itself invariable … It has been said that that we are not without a standard in nature to which we may refer for the correction of errors and deviations in our measure of value, in the same way as in the other measures which I have noticed, and that such standard is to be found in the labour of men …If this test were adopted it has been said that every commodity would be valuable according to the quantity of labour required to produce them,—that if a quantity of shrimps required the labour of ten men for one day, a quantity of cloth the labour of ten men for one year, and a quantity of wine required the application of the labour of ten men for two years, the value of the cloth would be 365 times that of the shrimps, and that of the wine twice the value of the cloth (Ricardo, 2004c: pp. 401-402).

Ricardo, as alluded to in the previous section, was well aware that his preferred measure of absolute value, the quantity of labor required to produce them on average, was an imperfect in terms of determining relative value because commodities such as cloth in the above quote, for which advances of capital had to be made before they were brought to market, would sell for *more* than 365 times the value of the shrimps at a prevailing profit rate of, say, 10 percent. Similarly, at that profit rate, the wine would sell for more than twice the value of the cloth because the wine maker would be entitled to two years' profit as opposed to one year's profit in the case of the clothier. To complicate matters further, "if profits fell from 10 percent to 5 percent, the proportions between the value of wine, of cloth, and of shrimps would alter accordingly, although no alteration whatever took place on the quantity of labour necessary to produce these commodities respectively" (Ricardo, 2004c: p. 403). Thus, in Ricardo's mind, an invariable measure of value would be one where the commodity in question was "always produced by the same quantity of labour, whether employed for a day a month a year or any number of years … [provided] the proportions into which commodities are divided for wages and profits are always alike"

(Ricardo, 2004c: p. 404). Unless one could find an invariable measure of absolute value, it would not be possible to identify which commodity is responsible for a change in exchangeable or relative value over time. Perhaps more importantly, according to Sraffa, Ricardo's preoccupation with finding an invariable standard also arose from what he considered to be the "principal problem in Political Economy," viz., the division of the national product among the main contending classes: workers, capitalists, and landlords. If the division of the national product, arising solely from a rise or fall in wages, could alter by itself the magnitude of the national product [even though nothing had changed in terms of the total labor embodied in the social product], then "it would be hard to determine accurately the effect on profits" (Ricardo, 2004a: p. xlviii) which, in turn, would make it difficult to determine the impact of the rate of profits on the accumulation of capital and economic growth in a competitive capitalist economy. That is to say, an invariable measure of value was also needed in order to render the ratio of profits to capital determinable *before* knowing the rate of profits. If such an unambiguous measure could be found or constructed, then its value would remain unaltered as changes took place in the distribution of income between wages and profits. These are highly important points because, despite the fact that the theory is based on a number of unobservable variables, such as "labor values" and "surplus-value" — very much like the role played by "marginal utility" or "total utility" in the marginalist approach—If it is capable of generating refutable hypotheses and predicting economic behavior, then it is scientifically valid in explaining the actual movement of prices and, in turn, the distribution of the net product in a competitive capitalist economy. Ricardo, in his unfinished manuscript on Absolute Value, realized that "there is no such thing in nature as a perfect measure or value" and settled on an approximation and argued that if "we cannot have a perfect measure of value," why not choose one which characterizes how the greatest number of commodities are produced in the capitalism of his day. Just like in Section VI of his Chapter *On Value*, he settled in the manuscript on a commodity produced by labor for a year because,

> a year is a mean between the extremes of commodities produced on one side by labour and advances for much more than a year, and on the other by labour employed for a day only without advances, and the mean will in most cases give a much less deviation from the truth than if either of the extremes were used as a measure. Let us suppose that money [gold] to be produced in precisely the same time as corn is produced, that would be the measure proposed

> by me, provided it always required the same uniform quantity of labour to produce it, and if it did not, provided an allowance were made for the alteration in the value of the measure itself in consequence of its requiring more or less labour to obtain it. The circumstance of this measure being produced in the same length of time as corn and most other vegetable food which forms by far the most valuable article of daily consumption would decide me in giving it preference (Ricardo, 2004c: pp. 405-406).

Alas, Ricardo would soon have doubts about his proposed measure as revealed in a letter written (Sept. 5th, 1823) to James Mill less than a week before his untimely death from an acute ear infection: "I see the same difficulties as before and am more confirmed than ever that strictly speaking there is not in nature any correct measure of value nor can ingenuity suggest one, for what constitutes a correct measure for some things is a reason why it cannot be a correct one for others" (see Ricardo, 2004e: p. 387).

LABOR VALUES AND PRICES OF PRODUCTION

Ricardo, like Smith before him, was not able to resolve the issue of how it is possible for the labor theory of value to retain its validity when the commodities being exchanged are produced by capitals whose proportions between wages and profits are not alike, or are of different durability, or are advanced for different periods of time (see Ricardo, 2004a: pp. 43-44). According to Howard and King (1985), Ricardo even entertained doubts about its operation in that "early and rude state of society" as evinced by the following letter to James Mill:

> In opposition to [Torrens], I maintain that it is not because of this division into profits and wages,—it is not because capital accumulates, that exchange value varies, but in all stages of society, owing only to 2 causes: one the more or less quantity of labour required, the other the greater or less durability of capital:—that the former is never superseded by the latter, but is only modified (quoted from Howard and King, 1985: p.78).

That is, Ricardo's natural (equilibrium) prices were no longer determined by labor values as measured by the necessary labor time required to produce them. This led to the disintegration of the Ricardian School during the 1820 and 1830s despite the vigorous, but ultimately flawed defense of the labor theory of value by his most ardent and respected followers, viz., James Mill and John R. McCulloch (see Meek, 1975: pp. 121-125). Marx, to his credit, attempted to show how the so-called "transformation problem" could be

solved and, in the opinion of prominent historian of economic thought, Mark Blaug (1998: p. 219), "… it marks the first and only attempt in the history of economic thought to carry the labour theory of value to its logical conclusion."

Marx's proposed solution to the problem is given in Vol. III of *Capital* and it basically consists of showing that commodities do not sell at their simple labor values, but at their prices of production or "natural prices". The latter are equal to the cost price of production (c + v) plus the average rate of profit [the ratio of the total surplus value (Σs_i) created by the whole working class to the total capital (constant and variable) invested in all industries, or in equation form, $r = \Sigma s_i / \Sigma(c_i + v_i)$.[5] That is, labor values deviate from prices of production in a systematic fashion, viz., capitals with a higher than average organic composition of capital (c/v) will sell their goods at prices of production that are higher than abstract labor values, and vice-versa. This is because more surplus-value is produced than is realized in the form of average profit in those industries with a lower-than-average organic composition (or rapid turnover time) compared with those branches of industry with an above average organic composition of capital (or lower turnover time). This outcome is brought about by capitalists striving to maximize profits under the relentless pressure of competition. They will invest their new capital in industries with a higher rate of profit and lower organic composition of capital and in the process lower prices (below labor values) via an excess supply of the given commodity while, at the same time, withdrawing capital from industries with a lower rate of profit and higher organic composition of capital and thus driving up prices (above labor values) via a relative decrease in the quantity supplied of the given good. The constant transfer of capital from one industry into another in search of profits results in an equalization of the different rates of profit into an average rate of profit. In other words, the "law of value" in a competitive capitalist economy relocates surplus value from those industries with a lower-than-average organic composition of capital to those industries with an above average organic composition of capital. In those industries in which, by accident, the organic composition of capital is equal to the economy-wide average, prices of production or "natural prices" would equal labor values. [6] In this connection, Petri (2015: p. 78), in an important paper which summarizes his (unfinished) joint work with the late P. Garegnani, contends that Marx, following Ricardo, utilized the labor theory of value as an analytical tool or device that allowed him to determine the rate of profit independently of relative prices for those industries operating with an average organic composition of capital, thus avoiding Smith's circular reasoning,

viz., "the need to know relative prices in order to determine the rate of profit, when relative prices in turn depend on the rate of profit." That is, the principle of *reciprocal compensation* in the aggregate, whereby labor values deviate from relative prices in a systematic function, results in an average rate of profit for the entire social product (whose organic composition is equal to the economy-wide average) that "can be determined [independently] while leaving its price relative to the means of production as the labour theory of value would determine it" (Petri, 2015: p. 79). In this interpretation, it is incorrect to think of Marx's labor theory of value as a *direct* explanation of relative prices (in terms of embodied labor) but, rather, it is designed primarily to be applied to the entire social product so as to determine "the average rate of profit, which once determined also allows … the determination of prices of production of individual commodities by applying the rate of capital advanced in the production of several commodities" (Petri, 2015: p. 79).

Needless to say, Marx's "solution" to the transformation problem has had more than its fair share of criticism, including from sympathetic ones such as Ronald Meek and Howard and King; Meek, for example, points out that his solution is incomplete because "it does not take into account that the value of elements of inputs as well as those of the output have to be transformed into prices" (Meek, 1975: p. 194).[7] From the standpoint of a formal system of simultaneous equations, Marx's numerical illustrations in Chp. IX of *Capital III* are clearly incorrect because he left the input prices proportional to labor values in the five spheres of production, and thus, each sphere produced commodities with two different prices, "one as an output and one as an input" (Hunt and Lautzenheiser, *op cit.*: p. 231). However, Sweezy (1970) and other knowledgeable commentators, contend that Marx *deliberately* simplified the calculation in Chp. IX by assuming that the output of the five different spheres does not enter into the production of any of the others" (p. 190). Apropos, the late Garegnani (2018: p. 8), in a paper which was revised and published posthumously by F. Petri, also contends that "It was left for Marx to attempt a more general treatment, and he came within a single step of a correct solution of the problem," viz., he realized that the inputs of "variable and constant capitals should have been expressed in terms of prices of production." It is evident from a careful reading of Chp. IX that Marx was well aware of this problem, and it is wrong to suggest that he ignored it as the following passage reveals:

> We had originally assumed that the cost price [used up c + v] of a commodity equaled the value of the commodities consumed in its

> production. But for the buyer the price of production of a specific commodity is its cost price, and may pass as cost price into the prices of other commodities. Since the price of production may differ form the value of a commodity, it follows that the cost-price of a commodity containing the price of production of another commodity may also stand above or below that portion of its total value derived from the value of the means of production consumed by it. It is necessary to remember this modified significance of the cost-price, and to bear in mind that there is always the possibility of an *error* if the cost-price of a commodity in any sphere is identified with the value of the means of production consumed by it (Marx, 1894: pp. 164-165; see also Marx, 1894: pp. 206-207).

Marx, despite recognizing the nature of the problem, did not believe it would alter his main results and goes on to write that, "Our present analysis does not necessitate a closer examination of this point" (Marx, 1894: p. 165). And the reason he thought that it would not significantly alter his analysis is that the cost price of a commodity, whether it was above or below the value of means of production consumed by it, is a "past mistake" that is "immaterial" to the capitalist currently producing the commodity. In no way does it interfere with the creation of value during the labor process, one that culminates in a commodity whose value is more than its cost-price (and contains surplus value). One should be careful here to note that Marx is not saying that the excess is *always* equal to surplus value because the average profit realized will, in general, differ from the surplus value produced in each industry. In his words, "The cost-price of a particular commodity is a definite condition which is given, and independent of the production of our capitalist, while the result of his production is a commodity containing surplus-value, therefore an excess of value over and above its cost-price" (Marx, 1894: p. 165).

Another possible interpretation of the above passage, advanced by Jones (2019: p. ix), is that Marx is simply saying that an error is likely to occur if one assumes, "*in all cases*, that the portion of the cost price accounted for by consumed means of production and the value of the means of production consumed are equal." That is, when viewed as events succeeding one another in historical time, Marx, according to Jones, has chosen this example where they are equal in order to illustrate "the real, historical transition that takes place from commodities selling at values to commodities selling at prices of production."[8] That is, once we transition from simple commodity production based on the personal labor of the producer and on means of

production belonging to him, to capitalist production where prices of production are an established fact, viz., "commodities [including labor power] bought at prices of production at the end of one period are used to produce commodities that sell at prices of production at the end of the next period," then one will surely fall into error "if one continued to equate the means of production used up with the (constant capital portion of) the cost price, even in cases where inputs are bought at prices differing from values" (Jones, 2019: p. ix).

From the above, Marx was too quick to minimize the importance of this problem, and given the fact that *Capital III* was published in an unfinished state by Engels after Marx's death, it is likely that Marx would have addressed it in a more careful manner had he lived longer and been in better health. That is, a lot of confusion around this problem could have been avoided if Marx had supplied "us with a numerical example showing cases where inputs are bought at (last period's) prices of production rather than at values, so we are left with only his description of how the calculation would go right" (see Jones, 2019: p. x). Still, without a correct solution on how to transform the value elements of inputs in the five spheres of production, the three invariance conditions necessary for the transformation of values into prices of production (and surplus-value into profits) cannot be met, viz.: 1) the sum of prices in each sphere equals the sum of labor values; 2) the sum of profits in each sphere equals the total surplus-value ; and 3), the average rate of profit is equal to the ratio of total surplus value to total capital (see Wolff, 1984).

In view of Marx's incomplete (and incorrect) mathematical solution to the transformation problem, it was not until early in the nineteenth century that a German economist named Ladislaus von Bortkiewicz showed that, "Marx was right in principle, and wrong in detail" (see Harvey, 2006: pp. 64-65; Howard and King 1985: p. 138). Bortkiewicz's solution, however, was dependent on the *ad hoc* assumption that one of the three sectors in his system of equations, producing the luxury commodity gold, has an organic composition of capital equal to the average organic composition in the entire system and, as a result, labor values coincide with prices of production. This, as pointed out by Howard and King, "will not be true in any actual capitalist economy, except by chance." Subsequent more rigorous mathematical solutions, including that by Seton (1957: p. 59), involving n departments and without the assumption of simple reproduction, have shown that Marx's solution to the transformation "problem admits of a uniquely determined solution" that is consistent with "Marx's conception of the

transformation process, and the formal inferences he drew from it." Morishima's (1973) seminal contribution, according to Zhang (2019), also "solves" the transformation problem by assuming that all sectors of industries have the same value (organic) composition and iteratively recalculates labor values (and the new profit rate) in terms of prices of production as originally suggested by Marx "until the correct equilibrium price (i.e., price of production) and rate of profit (average rate of profit) are obtained" (Zhang, 2019: pp. 285-286). The procedure, however, assumes that the value of a commodity is redefined in terms of a *minimum* or optimal quantity of labor needed to produce it (akin to, but not the same as Marx's socially necessary labor), and when necessary and surplus labor are recalculated in terms of these "optimum values," only then can Morishima's Fundamental Marxian theorem be established, viz., "a positive rate of exploitation entails a positive rate of profit, and vice versa" (see Howard and King, 1992: p. 273). This is an important finding that is not explicitly established by the Bortkiewicz procedure outlined above, and one that was of particular concern to Marx who wanted to show that exploitation is a *necessary and sufficient* condition for the existence of profits.

In this regard, several Marxian scholars have questioned whether we can interpret Marx's solution to the transformation problem in terms of an ahistorical, static, and formal (mathematical) approach, particularly when it involves solving a system of simultaneous equations. For example, Freeman (1995: p. 4) contends that adopting the static formalism introduced by Bortkiewicz and others "necessarily suppresses the variation of prices and the divergence of supply from demand and imposes market clearing at constant prices as an a priori postulate … Competition, the movement of surplus value in search of profits, is necessarily absent from simultaneous equation systems.[9] The normal scientific concept of causation, as a relation between events succeeding each other in [historical] time, is replaced with a timeless concept of determination by a mathematical postulate" (see also Harvey, 2013; Jones, 2019; Kliman, 2007; and Sowell, 1967).

SRAFFA'S SOLUTION

Despite showing that a formal solution can be found, sympathetic critics of Marx, such as Ronald Meek and Piero Sraffa, contend that Marx's journey from labor values to prices of production and surplus-value to profits is an unnecessary detour.[10] One could just start with the conditions of production and the distribution of the net income (output) of society between capitalists and workers in terms of a composite commodity and arrive at Marx's prices

of production and rate of profit. Neoclassical critics such as Samuelson (1957), on the other hand, go much further and argue that Marx's approach is from a formal (mathematical) standpoint, nonsensical, because one could just as readily start the transformation process in reverse order, starting with prices and profits and working back into values and surplus values. In other words, Samuelson contends that "Marx's transformation from values into prices of production is not a mathematical transformation in any real sense at all, but simply a process of erasing one set of numbers and replacing them with another set"—the so-called "eraser theorem" (see Harvey, 2006: p. 65). Thus, as Meek (1975: p. 26) observes, the question arises "whether the really important things that Marx was trying to say in this part of his analysis can in fact be said in a less exceptionable way through the adoption of an alternative approach?"

In this connection, Sraffa (1960) showed, via the construction of a standard (composite) commodity where value and price rate of profits are equal, that prices and profits can, in fact, be determined with reference to only "technical conditions of production and the distribution of the net product between capitalists and workers" (Howard and King, 1985: p. 172). Petri (2015: p. 78), as well as Garegnani, concur in this assessment because in their view "replacing Marx's imperfect determination of the rate of profit with Sraffa-type equations … means only strengthening of Marx's overall approach" which, as explained below, they incorrectly conflate with the classical (surplus) approach.

More precisely, in Sraffa's "neo-Ricardian" model, a composite (balanced) industry based on different commodities (e.g., iron, coal, and wheat) and labor can be constructed via an input-output system so that it fulfills the same "yardstick role" that Ricardo searched for or that Marx ascribed to an industry with an organic composition of capital equal to the average organic composition for the economy. In a highly ingenious and elaborate (mathematical) derivation that is beyond the scope of this essay, Sraffa shows that the net output (np) of this composite (balanced) industry relative to its means of production (mp) in terms of the standard commodity can be constructed in such a way "that the various commodities are represented among its means of production *in the same proportions* as they are among its products" (Sraffa, 1960: p. 19). In turn, if wages are zero, all the net output goes to capitalists and the ratio np/mp can be used to generate a maximum rate of profit denoted by, R, for the composite industry which is both independent of the actual rate of profit (r) and the changes in the relative prices of the goods that go into the construction of the standard

commodity (see Howard and King 1985, pp. 141-42; and Sraffa, 1960: pp. 18-23). [11]

That is, he can show what happens to the actual rate of profits (r) and prices in the standard commodity as the share of wages (w) in the net output goes from 1 (all the net output goes to workers) to 0 (all the net output goes to capitalists) via the following equation:

$$r = R\,(1 - w) \tag{1}$$

Using Sraffa's numerical example, and assuming that the maximum profit rate (R) in the standard industry is 0.20 and that three-fourths (w) of the standard net product (income) goes to workers and one-fourth (1-w) to capitalists, then the rate of profits would be 5 %; if the national income is divided equally between capitalist and workers, then r = (0.20) x (0.5) = 0.10 or 10 percent; and "if the whole went to profits the rate of profits would reach its maximum level of 20% and coincide with the standard ratio. The rate of profits in the Standard system thus appears as a ratio between quantities of commodities irrespective of their prices" (Sraffa, 1960: 22).

In so doing, Sraffa's standard commodity can accomplish what Ricardo strived for his entire life but could not accomplish, viz., fulfill one of the primary requirements of his invariable measure of value or "balanced commodity," which consists of being able to determine the rate of profits before determining relative prices. Moreover, by doing so, he is able to arrive at essentially the same results as Marx in terms of generating prices of production and identifying the origin of profits (and "exploitation") without prior reference to variables such as labor values and surplus-values.[12] In Petri's words, "The proof that *starting from those same data* a correct determination of relative prices and the rate of profit can be achieved, although with other tools, *confirms* the solidity of the [classical] surplus approach" (2015: p. 79). Again, as discussed in more detail below, it confirms the solidity of the surplus approach, but whether it can be conflated with Marx's unique methodology (viz., mode of production analysis, dialectics, historical specificity, or distinction between essence and appearance) and unique concepts such as labor vs. labor power, constant vs. variable capital, and/or abstract homogenous vs. concrete labor is a highly debatable proposition (see Rubin, 1979; Shoul, 1974; Sowell, 1967; Wolff, 1984).

If, from a quantitative standpoint, Marx's theory of value is not needed to generate a theory of the rate of profit which is *independent* of relative prices, and the origin of profit can be readily explained in terms of the standard (composite) commodity, then why not follow the lead of

contemporary economists and analyze long-run prices and their determination directly; or, better still, follow the lead of sympathetic but forceful critics such as Joan Robinson, and just "expunge value" from his system because "none of the important ideas which he [Marx] expresses in terms of the concept of *value* cannot be better expressed without it"; and its function is … reduced to that of providing 'incantations' which Marx uses … to slay the 'complacent apologists of capitalism'" (Robinson, 1957: pp. 17-20). The major disadvantage of doing this, in the view of Harvey (2018: pp. 63-64), resides in the sociological or qualitative aspects of the value relation, viz., "If we erase the dialectical relation between prices [of production] and values, then there is no standpoint from which to mount a critique of the monetary representation of the social labour that labourers are called upon to do for others in the course of performing wage labour for capital. We will be powerless to explain where the monetary aspects of crises come from and why crises in general are inevitably expressed in money form" (see also Sweezy, 1970; and Mattick, 1972).

Meek also concurs with this general view, and criticizes Joan Robinson for forgetting that for Marx "value is a social relation," and that its qualitative task, if you will, "… is to show how relations of exchange were determined by relations of production," and, more importantly, how capitalist relations of production are primarily dependent on the emergence of labor-power as a commodity and the hidden labor-capital relation (Robinson, 1957: p. 24). That is, Marx viewed the principal problem of political economy as one involving the resolution of the problem of how is it possible for social relations to appear as value relations. In other words, the social nature of production under commodity production, whether simple or capitalist production, only establishes itself indirectly via the exchange of the products of apparently independent producers in the marketplace. The *sine qua non* of Marx's dialectal approach is that, "the relations connecting the labor of one individual with that of the rest appear, not as direct social relations between individuals at work, but as what they really are, material relations between persons and social relations between things. It is only by being exchanged that the products of labour acquire, as values, one uniform *social status*, distinct from their varied forms as objects of utility … This I call the fetishism which attaches itself to the products of labor, so soon as they are produced as commodities, and which is inseparable from the production of commodities" (Marx, 1867: pp. 72-73).

The basic idea advanced here is that value, conceived as a *social "relation between persons expressed as a relation between things*,"

represents, under capitalism, a highly useful analytical tool for understanding (and criticizing) the unequal "exploitative" relation between capital and labor which expresses itself in the contradictory unity of the production and realization of commodities "pregnant" with surplus-value. The value of commodities is, in turn, expressed in terms of money or prices and, in this "hidden material form," resides the inherent contradiction between use-value and exchange value which, during times of crisis, erupts into a payments crisis and "the use-value of commodities becomes value-less" and only money [the extrinsic measure and pure form of value] is a commodity worth having (see Harvey 2014: p. 27). In Marx's own prescient and colorful words, "On the eve of the crisis, the bourgeois, with the self-sufficiency that springs from the intoxicating prosperity, declares money to be a vain imagination. Commodities alone are money. But now the cry is every-where: money alone is a commodity! As the hart pants after fresh water, so pants his soul after money, the only wealth. In a crisis, the antithesis between commodities and their value form, money, becomes heightened into an absolute contradiction … the form under which money appears is of no importance. The money famine continues, whether payments have to be made in gold or in credit money such as bank-notes." (Marx, 1867: p. 138).

This is not the same thing as arguing that "exploitation" can *only* be conceived in terms of a labor theory of value, as opposed to, say, the surplus approach advanced by the classical economists and neo-Ricardians, viz., "the positivity of the rate of profit in capitalist economies … reflects the capacity of the social group that appropriates the profits to compress wages below their *potential maximum* uniquely by virtue of the social power given to them by the social institutions of capital" (Petri, 2015: p. 82). Garegnani (2018: p. 24), in an article published posthumously by Petri, also contends that the existence of exploitation in a capitalist economy does not in any way depend on the validity of the labor theory of value "whatever the aura which the 'utopian' use of the theory may by now have built around it. The proposition depends, on the contrary, on the validity of the entire theoretical approach founded on the notion of the social surplus—from which it emerges that profits have no systematic explanation other than the fact that the existing order does not allow workers to appropriate the entire product." He goes on to add that, "if … this approach is legitimate to describe the revenue of a feudal lord as the result of labour exploitation, it will seem to be no less legitimate to describe profits in the same terms."

However, to paraphrase Sweezy (1970), and in contradistinction to the

surplus (classical) approach of Petri and Garegnani, the "great originality of Marx's theory of value" resides in its dual nature, viz., the quantitative-value or exchange relation is nothing but an outward expression of its qualitative-value or *social relation*; it is based on (class) relations of production that are specific to the competitive capitalism of Marx's day which, in turn, reduces (converts) the various kinds of concrete (useful) labors into "one and the same sort of labor in the abstract" — it rests upon the idea that labor in the abstract is the substance of exchange value.[13] It is incorrect to minimize, as Petri does, the importance of these "sociological" aspects or "tasks" of Marx's labor theory of value and to argue that economists such as Hilferding, Mattick, Petry and Sweezy did not understand the "strictly 'quantitative' role of the labour theory of value in Marx" (Petri, 2015: p. 79). These economists were fully aware of the importance of the quantitative-value relation in Marx's labor theory of value and its deficiencies, but they were also aware of the qualitative or sociological aspects or "tasks" (to use Petri's words) of the theory, and contrary to Petri (2015: p. 79), did not believe that these "tasks" did not belong in Marx's theory of value "or had only indirectly insofar as it was a tool in explaining prices and the rate of profit." In fact, Marx never tired of emphasizing in *Theories of Surplus Value* and elsewhere that by failing to analyze the specific historical and social *(class) dimensions* of the value relation, viz., that workers are obliged by capitalists to work more than needed to reproduce the value of their wages (labor-power) — a surplus product (value) which is surrendered to the capitalist class by virtue of their ownership of the means of production. Classical economists such as Smith, Ricardo and Mill were misled or deluded by "the illusions created by competition" (the realm of exchange relations), and uncritically (and deliberately) adopted erroneous and confused views on key economic concepts such as exchange value, rent, wages, or the origin of profits (interest). That is, the transformation from labor values into prices of production under the relentless sway of competition "performs an obvious ideological and apologetic function at the same time that it mystifies the origin of profit as surplus value" (Harvey, 2006: p. 68). In the perceptive words of Wolff (1984: p. 128) "Even the most 'scientific' observers of capitalism, fail to perceive the inner connection between profits and exploitation. The way is opened to the rationalization of profit as the reward of abstinence (or 'waiting'), for entrepreneurial skill, or for risk taking."[14]

Political Economy in Marx's time, and neoclassical economics today, was able to obfuscate and "fetishize" the social process of production into one where the capital advanced (in wages, raw materials, and machinery)

merely reappears in the value of the commodity when sold so that the process can start anew. In other words, "the transformation of the capitalist process of production into a complete mystery is happily accomplished and the origin of surplus-value existing in the value of the product is entirely withdrawn from view" (Wolff, 1984: p. 225). It is but one short step from this to adopt the fetish conception embedded in the marginal productivity theory of distribution, viz., that "machines (inanimate things) produce value"— an impossibility because value is an immaterial social relation; in the suggestive words of Harvey (2010: p. 37), "To find value in a commodity … is like trying to find gravity in a stone. It only exists in relations between commodities and only gets expressed materially in the … form of the money commodity." What machines do "produce" is extra or surplus profit for the individual capitalist who first employs them because they increase the productivity of labor, and eventually for the entire capitalist class when their use becomes general (via a reduction in the value of labor power). But under the capitalist mode of production, Marx argues, "labour's social productive forces appear to be due to capital, rather than labour as such, and seem to issue from the womb of capital itself … then the process of circulation intervenes, with its changes of substance and form" (Marx, 1894: p. 827). That is, the circulation of capital within the realm of exchange relations blinds practical capitalists and their vulgar spokesmen into believing that social (class) relations which arise within production are the property of material things. This "world of illusion" leads Marx to forcefully proclaim at the end of Chp. XLVIII that, "In capital-profit, or still better capital-interest, land-rent, labour-wages, in this economic trinity represented as the connection between the component parts of value and wealth … and its sources, we have the complete mystification of the capitalist mode of production, the conversion of social relations into things … It is an enchanted, perverted, topsy-turvy world, in which Monsieur le Capital and Madame la Terre do their ghost-walking as social characters and at the same time directly as mere things. It is the great merit of classical economy to have destroyed this false appearance and illusion … this personification of things and conversion of production relations into entities, the religion of everyday life" (Marx, 1894: p. 830; see also Marx, 1867: pp. 72 and 79 for a similar analogy to the "religious" world). And for Marx, the ultimate capitalist fetish is interest-bearing capital because, "there is no metamorphosis (actual transaction) in which capital in commodity form is realized as money … it is a relation of money to money… interest-bearing capital seems to have the magical (fetish) to grow at a compound rate" (Harvey, 2013: p. 176);

and this forms the basis of Marx's very important and lengthy discussion of the concept of fictitious capital[15] along with the growth and proliferation of credit markets (domestically and internationally) which he takes up in Chps. 27, and 29-33 of Vol. III of *Capital* (for further details, see Ramirez, 2019: pp. 46-62).

That is, despite the classical school's advance in terms of correctly analyzing the determinants of value and wealth and tracing their source to the socially necessary labor performed in the productive circuit of capital as opposed to its circulation phase, even its "best spokesmen," such as Ricardo, remained more or less gripped in a "world of illusion" where natural rather than historically-determined "social laws" dictated their understanding of how wages, profit, and rent are determined in competitive capitalism. And insofar as Ricardo's followers are concerned, Sweezy (1970: p. 38) observes wryly that they were "alarmed by the vistas opened up to them, quickly retreated into the world of illusion which he [Ricardo] had all but given them the means to escape … it was only critics of the existing social order, like Marx, who cared to take up where Ricardo had left off by laying bare the real social relations underlying the forms of commodity production." That is, the capital-labor relation whereby workers are "free" to sell their labor power in exchange for access to the means of production under conditions largely dictated by capital.

CONCLUSION

This paper has provided a critical and historical overview of the important parallels and differences between Ricardo's and Marx's views on the relative and absolute value of commodities in terms of the labor theory of value. The paper tackled several theoretical and practical problems associated with the construction of an invariable standard of value capable of measuring the absolute value of commodities—one which is independent of the changes in the relative prices of the goods. Ricardo, as argued, struggled with this problem all of his life, including his *draft* and *unfinished manuscript* on "Absolute Value and Exchangeable Value" where he outlined in careful detail how such an invariable standard of measurement could be constructed. Marx proceeded to show, in a fully consistent labor theory of value, how such a standard could be erected in *Capital III* via the emergence of a uniform and economy-wide rate of profit in a competitive capitalist economy. This led to the systematic deviations of labor values from prices of production, except in those industries or sectors in which, by accident, the organic composition of capital is equal to the economy-wide average. From a

strictly formal standpoint, the paper showed that his solution was incomplete (and incorrect), so it had to await the seminal contributions of Bortkiewicz, Seton, Morishima, and ultimately Sraffa to be resolved. However, Sraffa's original and precise solution to the problem of constructing a standard (composite) commodity is basically a *static and ahistorical* one which takes the distribution of income between capitalists and workers as exogenously given. In other words, the dismissal of Marx's labor theory of labor value by neoclassical economists—and its abandonment by Neo-Ricardians as an outdated analytical tool—comes at the heavy price of discarding those qualitative and dialectal (dynamic) elements in his class-based and historical approach which make it such a valuable tool for understanding the social (power) relations of capitalism as well as cutting through its ideological obfuscations. Without the qualitative and dialectical (relational) elements of the labor theory of value, whatever its quantitative shortcomings may be, it becomes very difficult to have a comprehensive understanding of the historically specific (class) relations of capitalism and their evolution over time, the origin and distribution of profit (interest), the determination of wages, a coherent theory of capital, and the development of the productive forces (including technological change). Apropos, Sweezy observes that "qualitative-value theory with its corollary in the doctrine of Commodity Fetishism is the essential first step in the Marxian analysis of capitalism. He who has not understood this has understood little of Marx's method" (Sweezy, 1970: p. 40).

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Notes

1 Both Ricardo and Marx used "real" as a synonym for "absolute." For example, in *Theories of Surplus Value Part II,* Marx writes, "At times Ricardo also calls this "absolute" value "real" value or simply value … Secondly, [Samuel Bailey's polemic is directed] against "absolute" or "real" value as distinct from comparative value … Ricardo is rather to be reproached for very often losing sight of this "real" or "absolute value" and only retaining "relative" and "comparative values" (p. 172). For Ricardo's use of the term "real" value, see Ricardo, 2004e: p. 38, and footnote 2 below.

2 Following the lead of Meek (1975: p. 111), the concept of absolute value utilized in this essay … "lies in the assumption that a change in the relative

values of commodities can be usefully regarded as the net resultant of a change which has taken place in the "absolute" (or "real") value of one or both of them considered individually. The "absolute" value of a commodity, in the broad sense, is in fact measured by an "invariable standard." For a similar interpretation, see Wolff (1984: p. 28). Cf., Ricardo (2004a: pp. 43 and 284); Although Marx does not utilize the term absolute value in *Capital I*, he does refer to "real" and "absolute" value in contradistinction to "relative" or "exchangeable" value in numerous places in *Theories of Surplus Value, Parts II and III*, in his discussion of the disintegration of the Ricardian School. For example, in *TSV III,* he writes, "*Real* [italics in original] value means the commodity examined with regard to the labour required for its production; *relative* value implies the consideration of the proportions of different commodities which can be produced in the same amount of time … The *relative* value of commodities, in this Ricardian sense, is only another expression for their *real* value and means nothing more than that commodities exchange with one another in proportion to the labour-time embodied in them" (p. 169). Cf., *TSV III:* pp. 139 and 170.

3 "Positive" value and "real" value are treated as synonymous. See Meek (1975: pp. 112-113); and footnotes 1 and 2 above.

4 In a letter to Trower dated August 22nd ,1821, Ricardo emphasizes this distinction: "The exchangeable value of a commodity cannot alter, I say, unless either its real value, or the real value of the things it is exchanged for alter … If a coat would purchase four hats and will afterwards purchase 5, I will admit that both the coat and the hat have varied in exchangeable value, but they have done so in *consequence* [my emphasis] of one or other of them varying in real value, and therefore if I use the word value without prefixing the word exchangeable to it, it will be correct for me to say that the coat has risen in value whilst hats have not varied, or that hats have fallen in value while coats have remained stationary" (Ricardo, 2004e: p. 38).

5 In *Capital III (Chp. IX),* Marx explicitly (and implicitly) assumes that there are equal rates of surplus value in all five spheres of production (industries), perfect mobility in product and factor markets, a competitive market structure, a unitary rate of capital turnover so that the capital *used up* in the production process is equal to the capital *advanced,* and finally, a constant working day in all spheres of production (see Gottheil,1966: p. 20).

6 For further details on the voluminous literature surrounding this topic, see Blaug (1998: pp. 219-224); Ekelund, Jr. and Hebert (2004); Garegnani (2018: pp. 1-25); Gottheil (1966: pp. 20-27); Harvey (2006: pp. 61-68); Hunt and Lautzenheiser (2011: pp. 222-231); Howard and King (1992, Chp. 12); Jones (2019: pp. viii-x); Morishima (1973: pp. 58-86); Meek (1975: pp. 16-28); Petri (2015: pp. 77-104); Seton (1957: pp. 149-60); Sweezy (1970: pp. 109-130); and Wolfson (1990: pp. 179-195).

7 It also does not account for the fact that as capital is redistributed [via competition] from sectors with low to high organic composition, the total

output of surplus value changes and this alters the rate of profit [which was assumed to be known or given in advance by Marx in his presentation in Chp. IX of Vol. III].

8 Marx believed that his analysis reflected the actual historical progression from simple commodity production where commodities exchange at their values to capitalist commodity production where they exchange at their prices of production. Consider, for example, his following remarks in *Capital III* on the matter: "The exchange of commodities at their values, or approximately at their values, requires a much lower stage than their exchange at their prices of production, which requires a definite level of capitalist development … it is quite appropriate to regard the values of commodities as not only theoretically but also historically *prius* to the prices of production"(Marx, 1894: p. 177).

9 But one could argue that competition is behind the system in terms of generating uniform prices in the relevant industries, as well as a uniform rate of profit and wage rate.

10 A "solution" can be found provided that alternative techniques for producing a commodity and *joint-production* (two or more commodities produced by single industry) are ignored; according to Howard and King (1985: pp. 156-161), it is extremely challenging to determine how to allocate the total necessary labor and define labor values in cases of joint production, such as the separate values of wool and mutton generated from the raising of sheep. These cases are from a practical standpoint very important, because by-products are common in both agricultural and manufacturing activities. For further details, see Steedman (1977) and Brewer (1984: p. 139).

11 That is, "the proportions in which the three commodities are produced in the new system (180:270:360) are equal to those in which they enter its aggregate means of production (150:225:300). The composite commodity sought for is … made up in the proportions, 1t. iron: 11/2 t. coal: 2 qr. wheat" (Sraffa 1960: p. 20).

12 Interestingly enough, Howard and King (1985) observe that there is a direct correspondence between Sraffa's expression for the rate of profit and Marx's definition in terms of labor values. Given that the maximum rate of profit, R, is nothing but the ratio of the net product to the means of production, it can be expressed in terms of Marx's notation as follows:

$$\sum(s + v)/\sum(c + v) \quad (2)$$

Likewise, the share of wages in net output in Marx's notation is given by, "v/ "(v + s), which permits us to write the actual rate of profit in labor values as,

$$r = [\sum(s + v)/\sum(c + v)]\,[1 - \sum v/\sum(s + v)] \quad (3)$$

or

$$r = [\sum(s + v)/\sum(c + v)]\,[\sum s/\sum(s + v)] \quad (4a)$$

and cancelling terms we obtain Marx's definition of the profit rate in terms of labor values,

$$r = \sum s/\sum(c + v) \quad (4b)$$

or more compactly,

$$r= e/k +1 \quad (4c)$$

where e is the rate of exploitation or surplus-value ($\sum s/\sum v$) and k is the organic composition of capital or $\sum c/\sum v$. Marx assumes that wages or variable capital are paid in advance so, unlike in Sraffa's formulation where they are paid at the end of the production period, they do form part of capital and appear in the denominator of eq. 6.

13 Sweezy attributes the original distinction between the quantitative-and qualitative-value problem to Franz Petry (1916: p. 27), viz., "the quantitative relation between things, which we call exchange value, is in reality only an outward form of the *social relation* between the commodity owners … in a society based on division of labour in which producers work privately and independently."

14 Apropos, Howard and King (1992: p. 296) observe that "Marx's economics was not simply a linear continuation of classical political economy, and this is true of whether the Sraffian critique of Marx's quantitative value theory is sound … there is nothing in the Sraffian framework which could compensate adequately for the ideological-political loss that results from eliminating all reference to the concept of surplus value." Marxian economics may share important conceptual elements with the classical (surplus) approach, but it has its own distinct methodology and unique concepts. See Zhang (2019: p. 286), Freeman (1995: p. 4), Mandel and Freeman (1984: pp. 19-25), Rubin (1979: pp. 268-70), and Sowell (1967: pp. 50-74) for a similar interpretation.

15 When interest-bearing capital is well-established, any claim on a regular revenue (e.g., interest on a bond or capitalized rent) can be thought of as if it were itself a real capital; this is what Marx calls a fictitious capital (see Nelson, 1999).

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