

CONTENT-PLURALITY AND POLITICAL-UNITY IN THE DEBATE ON THE TRANSFORMATION PROBLEM

Tiago Camarinha Lopes



Tiago Camarinha Lopes is a Professor of Political Economy on the Postgraduate Program in Political Science at the Faculty of Social Sciences of Universidade Federal de Goiás, Goiânia, Brazil, and head of the Economics Undergraduate Course at the Faculty of Accounting, Administration and Economics of Universidade Federal de Goiás from 2017 to 2021. He was a Member of the Director Board of the Brazilian Society for Political Economy (Sociedade Brasileira de Economia Política) from 2016 to 2018, and is particularly interested in the relationship between value theory and class struggle. Email: tiagocamarinhalopes@gmail.com

Abstract: The paper presents a guideline to discuss a collective strategy for dealing with the controversy on the transformation problem of values into prices. The main argument is that the individual search for solutions to the transformation problem creates a variety of models that weaken the Marxist field in economics if they are seen as competing, adversary proposals, with each one possessing the pretension of being the unique correct path. This individualist procedure generates misunderstandings among authors that are on the same side in the political struggle against capitalist ideology in Political Economy. Accordingly, every single individual solution that seeks to defend Marx's theory must be supported in an organized framework aiming at the union. Five steps for this organization are presented in the hope of contributing to a collective engagement with the transformation problem.

Keywords: transformation problem; philosophy of praxis; class struggle; value theory; Sraffa

1. Introduction

Even though many authors have declared the end of the transformation problem of values into prices, it continues to go on. The relationship between value and price is complex and a solid interpretation has some prerequisites. First, it must have a complete picture and profound reading of all three volumes of Marx's *Capital*. Second, it must be comprehended that the paradigm of value theory from which

Marx departed is that of Adam Smith, that is, Classical Political Economy. Third, it must understand that this scholastic controversy is important because it reflects a political resistance against the value theory of the working class in the field of “official” economic science.

Many interpretations accomplish these three prerequisites. However, given the political nature of the third prerequisite, it is not enough to develop a correct reading of the problem. The issue at stake is not only one of individual understanding of the conceptual and analytical relationship between value and price. The problem is that in order to concretely change the reality of economics, it is necessary to integrate all individual solutions to the transformation problem into a systematic arrangement with the potential to strengthen Marxism against bourgeois Political Economy in the 21st century. Given that the relationship between value and price is a complex one, there is a tendency for internal disagreements among Marxian economists. As with any other profound topic presented in *Capital*, such as exploitation, alienation, fetishism, etc., value and price are understood slightly differently by each one of us. The details of all these complex phenomena always lead to the highest level of abstraction, where individual perception is unique. We need to bear this in mind in order to advance and stop repeating the pattern of the debate as it developed for the most part of the 20th century.

This paper argues that all individual searches for a solution to the transformation problem must be articulated with a collective strategy. The aim of the paper is to help the readers and participants of the debate to understand that it is not so important to elaborate novel interpretations for the problem to be imposed on others, but to define a way for their own individual readings and solutions to be part of a collective effort to change economic thought in reality. So, the essence of my argument is not to defend a specific way of *how* the value–price network should be viewed in a Marxist framework, because what matters is not to define a unique reading among the various methods used by the transformation problem debaters. Content-plurality and political-unity is the way to go.

Section 2 of this article makes it explicit that the controversy on the transformation problem is more a political than a technical issue. Section 3 comments on some of the types of competing technical solutions to the problem, showing how divided the Marxist camp becomes when the focus is on content. Section 4 explains the necessity of a collective strategy and proposes five steps towards it. Section 5 concludes the paper arguing that union is fundamental at this stage of the controversy and should be considered before minor divergences about content. Contributions that do not address this strategic problem fail to engage with the transformation problem in a positive way and only take us back to the paradigm of controversy of the period between 1906 and 1970, the second phase of the controversy on the transformation problem.

2. The Political Dimension of the Standard Solution: Polarization

Since Paul Anthony Samuelson used Sraffa's book, *Production of Commodities by Means of Commodities*, to fundamentally change Böhm-Bawerk's ([1896] 1949) criticism of Marx's system, a fake idea spread. Marx's and Sraffa's systems would be irreconcilable. Even worse: Sraffa's system would harm Marx's theory. Samuelson's eraser algorithm acts like a trick to confuse and divide. Marxists thought that they had to react to Sraffa, as if he represented a menace to Marx's *Capital* in a similar way to Böhm-Bawerk. In fact, Sraffa's system symbolizes the definitive rejection of Böhm-Bawerk's thesis of contradiction between Volumes 1 and 3 of *Capital* and therefore the successful conclusion for the search of an algorithm that relates values and prices quantitatively.

This is the triumph of Marxist analysis over Engels's challenge on how to conciliate the law of value with the movement of profit equalization through capitalist competition. Since then, Marx's *Capital* should have the same status as any other bourgeois textbook of Political Economy. In other words: Marx's *Capital* should be considered, analytically, as valid as any system of Political Economy of the status quo. Both perspectives to value theory (Marxist and anti-Marxists) are equally valid from the standpoint of logical reasoning. From there on, no one can dare to argue that value is in *contradiction* to price. So, the enemies of working-class economics had to change their line of attack. The objective truth that one can describe prices without referring to value became the starting point to construct a new ideological discourse to disdain Marx's Political Economy. Value is *redundant* to price, they say.

The change from Böhm-Bawerk's critique of contradiction to Samuelson's critique of redundancy is the most important advancement in the controversy of the transformation of values into prices so far. It represents both the rupture with a series of contributions that were circular and a synthesis to what we may refer to as the standard solution to the transformation problem. In fact, this standard solution that leads to the claim that value analysis is redundant is a repetition of an accusation against Marx's theory that was already present at the end of the 19th century. However, this kind of critique is too subtle, and it remained unperceived due to the more direct critique of contradiction developed by Böhm-Bawerk, which became the most popular opponent to Marx's approach to value theory regarding the relation between values and prices.

What is the problem with the standard solution? Well, it is not exactly a problem, but a peculiarity. Due to the political duplicity that can be drawn from its analytical result, the standard solution produces a sharp polarization. The strength and accuracy of the standard solution lies precisely in the fact that it enables such divergent assimilation from the standpoint of politics.

On one side, it can be said that prices can be derived without any reference to values and so the value analysis is unimportant/superfluous/irrelevant/unnecessary/useless, etc. On the other side, it can be said that value analysis is, among others, a valid scientific methodology to deal with prices. Both sides are analytically correct, but they represent politically antagonistic sides.

In my interpretation, this is precisely the result to which Engels was looking for. Engels anticipated the critique of redundancy by around 80 years before it became popular. In order to understand this, it is crucial to revisit his comment about Wilhelm Lexis's attempt to solve the challenge of conciliating the law of value with an equal profit rate across sectors. Wilhelm Lexis (1837–1914) was a German statistician and economist who engaged with Engels's challenge and so contributed to the reception of Marx's *Capital* in the academic world of economics in the late 19th century. Lexis presented his position in 1885 in the most important academic journal of Political Economy in Germany, the *Jahrbücher für Nationalökonomie und Statistik* [Yearbooks for National Economy and Statistics], also known as *Conrads Jahrbücher* back then.¹

According to Engels ([1894] 2004), Lexis (1885) understood the analytical contradiction between what he calls the Ricardo-Marxian law of value and an equal average rate of profit. For Lexis, the solution is indeed possible if it is considered that produced surplus-value in total is distributed within the capitalist class not according to the number of workers they employ individually, but according to the total volume of capital they have invested. Lexis recognizes that labour-values can be regarded as the starting point of a movement that arrives at prices that guarantee that kind of distribution. Consequently, it is perfectly possible to derive actual prices and the corresponding capital gains in the way indicated by Marx (or Ricardo and Smith for that matter). However, this method of explaining where prices come from is not the only one available. There are alternative explanations and so nobody is obliged to follow Marx's procedure. Marx's path to prices is valid, but so are the paths proposed by other economists. The labour theory of value is not the unique, true value theory. It is just as valid as any other theory of value out there. The critique of redundancy of the 1970s inspired by the Sraffa-shock is a renewed form of the same type of argument raised in the 1880s.

Engels indicates in this passage of the preface to *Capital* Volume 3 that the analytical solution that transforms values into prices of production validates Marx's option to derive prices from values, but that no one is obliged to adopt this perspective. He agrees with Wilhelm Lexis and, as I interpret it, he would logically also agree with Samuelson on this specific point. Why? Because value theory is class-dimensional. Only those who struggle at the side of the working class will feel comfortable to accept Marx's view. The most important result of the analytical solution is this: it shows that the relation value–price is a relation of essence–appearance

(surface). So, it reveals that value and price can function as reference points to observe the exchange relations between useful things. From one side, it departs from value and the objectivity of the labour process; from the other, it departs from price and the subjectivist world of consumer's preferences in the market (vulgar economics). This means that Marx's system is valid, even if the enemies of the working class do not like it. Likewise, it means that bourgeois economics is also valid, even if the friends of the working class do not like it.² This is the reason why solving the traditional transformation problem is (was) so important. It reveals that the fundamental differences between divergent economic theories are related to class interests and not to analytical/logical disparities.

The Sraffa-shock symbolizes one of the greatest achievements for Marxist analysis in the relation of value and price, even if it seems at first glance like a harmful result. This is so, especially because as Marxists, we do not want to accept the entirety of Classical and utopian socialist Political Economy, as Sraffa's system implies.

Besides this, a novel and crucial point to which I will turn later in Section 4, there are other reasons as to why it is so hard to see that Sraffa made a great scientific contribution to the working class. Sraffa employed an encrypted language in his major work, where political and historical analyses are absent. Only recently have we had access to more details about his activities as a follower of Marx. Sraffa and Marx are on the same side of the struggle, but the context in which their theoretical contributions are inserted is different. This explains why it seems so strange to merge their works into the same set.

Marx was dealing with the mainstream economics of the 19th century, while Sraffa was dealing with the mainstream economics of the 20th century. While Marx had to impose his system onto Classical Political Economy, Sraffa had Neoclassical Economics as an enemy. While bourgeois economics in the period of Classical Political Economy was still based on the labour theory of value (even if the negation of that theory had already begun in the second half of the 19th century), bourgeois economics of the Neoclassical era is based on the utility theory of value. So, their attacks against capitalist economic thought have specific shapes.

The urge to respond to Sraffa's scheme generated a series of works with the pretension to defy the standard solution. Instead of interpreting the standard solution as a positive outcome for Marxian analysis, many authors took the bait. They felt insulted with the accusation of redundancy, as if this attack were as strong as the claim of contradiction. Steedman (1977) decisively contributed to this by organizing the paradoxes that emerged from Samuelson's *voilà* and announcing a new kind of challenge for Marxian scholarship. Despite having relevant differences, all these attempts to defend Marx from a supposed Sraffian attack share the political stance in favour of an economics for the working class.

There has now been a period of about 50 years in which many authors engaged freely with the Sraffa-shock and produced dozens of alternative currents for solving the transformation problem.

Given this relatively large timespan and no meaningful analytical advancement since the 1970s, it is necessary to think about what is wrong. We have enough alternative readings trying to defy the standard view of the problem. All these critical approaches have led us to the same place: it is necessary to consider Marx's own proposal to conciliate the law of value and the equal profit rate in all sectors of the economy. Once Marx's solution is accepted beside the standard anti-(or non-)Marxian solutions, then it is possible to contextualize the political environment which haunts the controversy since its origins. And once we do this, it becomes clear that we cannot shut the transformation problem unless we show how it is used by the enemies of the Political Economy of the working class to avoid the spread of *both socialist and Marxist economics* in the Western official departments of economics. The solution to the transformation problem signifies the rehabilitation of the labour theory of value in all its wideness.

Instead of presenting a historical perspective on how the transformation problem has always been used to attack socialist economics and the labour theory of value politically, which would allow us to engage more effectively in the struggle, almost all alternative solutions that we will mention below try to defend Marx by almost ignoring the broader picture of the battle. The way in which they respond to the critique of redundancy is very different from the way in which Engels confronted such a claim. Engels was aware that it is not a matter of imposing Marx's theory over bourgeois economists because this clash cannot be resolved through logical reasoning. Most alternative readings of the transformation problem that react to the Sraffa-shock, however, seem eager to analytically prove Marx's superiority over any other approach to economics.

The procedure I am proposing is one in which we should support each other's approach to the complexities of the relationship between value and price, so that we avoid unproductive discussions about who has the correct interpretation. In my view, any interpretation based on serious intellectual and militant engagement is a valid standpoint and must be respected. I do not feel I need to make such detailed corrections to align "my Marx" with "other's Marx," and so should everyone. Of course, there are currents to which we are closer, but this cannot be an excuse for exclusion and arrogance towards readings that seem wrong to our eyes. The differences that really matter are not related to interpretation, which is an abstract philosophical activity. Assimilation of content will always diverge a little, even if the content is unique and objective.

I want to call attention to another kind of divergence. It is a divergence about the strategy of the battle regarding the entirety of the controversy of the

transformation problem. The strategy adopted by most Marxian contributions since the 1980s can hardly guide us ahead in the controversy. They are too focused on content. So, it is not a matter of correctly describing the transformation of values into prices: we lack some strategic plan on how to act together against the systemic refusal of Marx in the officiality of economics. We lack a coherent strategy for influencing and shaping the mainstream economics discourse. This is what impedes a broader acceptance of socialist and Marxist economics in the capitalist countries. This is the concrete challenge. It is too complicated to be met by uncoordinated, isolated attacks. Political polarization is a sign of qualitative change. Sraffa's system solved Engels's challenge and opened a new stage for the value controversy.

The Marxian responses to the Sraffa-shock are like individual reactions against a much stronger and organized army. Some of these reactions are only well-intentioned, weak contributions from the standpoint of analytical thinking, but capable of political agglutination. Others are truly ground-breaking regarding content, but unable to influence a larger audience. That is the paradox we need to surpass. We need something that is both technically solid *and* politically clear. Bourgeois, mainstream economic thinking will not easily accept the expansion of Marxian Political Economy and will always find ways to divide competing currents of Marxist interpretations.

Our greatest failure is to allow the splitting up movement that has grown since Böhm-Bawerk's ([1896] 1949) critique of contradiction was substituted by Samuelson's (1971) critique of redundancy in the 1970s. Many Marxist economists are lost with the puzzling result of the Sraffa-shock. It is wrong to see Marx and Sraffa as enemies, but various Marxist economists fail to point this out; instead, they elaborate individual solutions, as if it were possible to impose to others their own reading.

3. Individual Reactions to the Sraffa-Shock

It is relevant to notice that the transformation problem is one of the most intense controversies around Marx's *Capital* within the officiality of economics. It relates directly to the abstract core of Political Economy: value theory. When one considers the controversy of the transformation problem in a broader historical context, it is easy to see that there have been two clear moments when polarization was strong. The three tables below are a visual presentation of this.³

The first moment when authors divided themselves into two clear opposing positions regarding Marx's theory was in the context of the publication of volumes 2 and 3 of *Capital*, in 1885 and 1894, respectively. On one side, the authors argued that there could be no reasonable response to the challenge proposed by Engels.

Table 1 Phase 1 (Polarized): Engels's Challenge (1885–1906)⁴

<i>Attempts to connect value and price</i>	<i>Critique of contradiction</i>
Platter (1895), Charassof (1910), Dmitriev ([1898] 1974), Tugan-Baranovsky (1905) Mühlport (1895) (. . .) Bortkiewicz ([1906] 1952, [1907] 1949)	Sombart (1894), Schmidt (1895), Diehl (1898) (. . .) Böhm-Bawerk ([1896] 1949)

Table 2 Phase 2 (Non-Polarized): The Traditional Transformation Problem (1906–1971)

Formalization of the analytical relationship between value and price

Shibata (1933), Seton (1957), Sweezy (1942), Winternitz (1948), May (1948), Dobb ([1955] 1995), Meek (1956), Morishima and Seton (1961), Johansen (1961), Samuelson (1970), (. . .) Samuelson (1971)

Table 3 Phase 3 (Polarized): The Critique of Redundancy (1971–Today)

<i>Individual and competing reactions to the Sraffa-shock</i>	<i>Critique of redundancy</i>
New Solution [Foley (1982), Duménil (1983–1984) and Lipietz (1982)] Qualitative development [Rubin ([1927] 1978), Mattick (1972) and many other authors] Empirical approach [Farjoun and Machover (1983), Shaikh (1998), Cockshott and Cottrell (1998)] TSSI [Kliman and McGlone (1999), Freeman, Kliman, and Wells (2004) and Kliman (2007)] (. . .)	Standard solution [Steedman (1977), Pasinetti (1979), Garegnani (1984)]

These authors opposed Marx's system in a way that they did not believe it was possible to reconcile the law of value (a central concept which Marx brings from Classical Political Economy into his own work) with a general equal profit rate across sectors. The most popularized form of this strand was Böhm-Bawerk's essay "Karl Marx and the Close of His System."

After that, there was a period where polarization became very hard to recognize. The search for an analytical way for converting values into prices of production was a period where the debate became less political. There was no clear continuation between authors, and so it seemed that the controversy was circular; that is, it seemed that there was no progress.⁵ Eventually, there emerged a solution that became the "standard." Paradoxically, this solution, which was precisely what the original defence of Marx's theory was looking for, appears to be the new anti-Marxist position in the third and current phase of the debate. This is represented by the so-called Sraffa-shock.

The standard solution absorbs both the Bortkiewicz-Sweezy and Sraffian interpretations. The usual Marxist concern with this kind of solution is that it separates the two entities (value and the price system). Solutions of this type can be called dual-systems and, as pointed out before, they are frequently considered harmful for Marx's theory, because they do not provide a meaningful explanation for merging the two entities. In fact, standard solutions are a line of various contributions seeking to definitely reject the critique of contradiction first raised by Böhm-Bawerk ([1896] 1949), and that they have a curious result which may be *negative* or *positive*, according to the political use of it. Those who do not comprehend the polarization that stems from the standard solution do not differentiate the critique of contradiction from the critique of redundancy.

So, the second moment of polarization is one in which we have various currents of Marxist scholars trying to defy the standard solution that has recovered the argument of redundancy of value analysis. The issue here is that authors think that the redundancy critique must be countered by alternative analytical solutions, when in fact what we need is a political reading in the way Engels indicated in the preface to Volume 3 of *Capital*. Every analytical solution culminates in the redundancy of value analysis for the eyes of mainstream, bourgeois, and superficial economics. This is a necessary outcome of the successful solution of Engels's challenge.

These three previous tables show that phases 1 and 3 of the debate are polarized, which is evidence for the conclusion of what I call the "traditional transformation problem" (phase 2).⁶ Accordingly, what we *don't* need is another solution or alternative way to solve the analytical problem of relating the value system with the price system. What we *do* need, and have done since the 1970s, is to politically master the analytical result that was obtained in phase 2. We need to conquer the so-called standard solution and indicate how it favours Marx's theory. All alternative readings from the Marxist side are mainly inventing new interpretations that barely understand that what is at stake is not the standard solution itself, but the political use of it.

These individual attempts to solve the problem anew represent competing reactions to the Sraffa-shock. They are politically on the same side, but they do not merge into a coherent system with a grasp of the whole history of the debate. Accordingly, friendly fire is a strong feature of the current phase.⁷ Considering the limits of the individual attempts to solve the controversy, how should we act if we want to push the transformation problem forward? I believe we should, first, consider the political forces impeding Marxist analysis to spread in official circles. This will indicate that no matter how clever we respond to the redundancy claim, enemies of socialist *and* Marxist economics will always discover another way to discredit our

theory and to divide us. Second, it is necessary to engage collectively in this controversy in order to ally all responses that are divided into different categories.

There are many ways to classify the various contributions that engage with the Sraffa-shock. The following presentation is a simple chronological exercise based on one of the most recent contributions that will serve as a representative example of defence of Marx's theory against the critique of redundancy: Fred Moseley's book *Money and Totality* published in 2016.⁸

First, there is the New Solution (or New Interpretation), which gathered different authors at the beginning of the 1980s around the contributions of Foley (1982), Duménil (1983–1984), and Lipietz (1982). I agree with Moseley that this current was “an important contribution to Marxian scholarship” (Moseley 2016, 284). Its relevance is due to its political challenge of Samuelson dominance over the topic, not because of its technical proposition to overcome the redundancy paradox. It is the starting point to defy the negative result of the standard solution for Marx's theory, and thus it must be praised as the pioneer of all alternative interpretations.

The next category is what I call “qualitative development.” It evades the quantitative problem of relating value to price by focusing on the qualitative side of value theory. This current is under the indirect influence of the pioneer works of Isaak Rubin ([1927] 1978), who first called attention to the revolutionary concept of abstract labour. I envisage it in a very broad way, containing different authors who share a critical tone towards the quantitative emphasis for solving the problem. Paul Mattick (1972) may represent one of the main names of this approach to the transformation problem. I would classify “the rethinking of Marxism interpretation” of which Moseley talks about also here, as well as “the organic composition of capital interpretation.”

Another category is the probabilistic approach based on the book *Laws of Chaos* by Farjoun and Machover (1983). Despite being, to my view, the most accurate and robust response to the Sraffian paradigm, it remained a less influential current among Marxist economists. I would try to approximate “Shaikh's iterative interpretation” to this category, since its main goal is to provide an alternative framework to test empirically the validity of the labour theory of value. We may refer to this strand as “empirical approach,” and so include Paul Cockshott in here also.

Finally, we have the Temporal Single System Interpretation (TSSI), represented by Kliman and McGlone (1999), Freeman, Kliman, and Wells (2004), and Kliman (2007). The TSSI achieved a very strong influence because its essence does not rest on any particular reading of the problem.⁹ Instead, the defenders of this approach managed to settle on common ground to conquer terrain held by the standard interpretation. The greatest merit of the TSSI is not to deliver a new analytical solution, but to claim that Marx's original method of dealing with the issue must be studied and regarded as a competing solution as any other proposition

being debated today. The concrete effect of this is not to be despised. One must check how the problem evolved historically to comprehend Marx's solution in *Capital* Volume 3. And the conclusion is that we have a qualitatively different attack against socialist *and* Marxist economics after the critique of contradiction was substituted by the critique of redundancy.¹⁰

So, our action must be directed to clarify this to surpass the desperate and uncoordinated attempts to respond to Samuelson (1971) and Steedman (1977). We need to have a strategic and collective intervention on the controversy according to the philosophy of praxis: what is the best way to spread the undeniable truth that Böhm-Bawerk's attack is finally destroyed and that both socialist *and* Marx's economics are valid after all? To me, that is the ultimate criteria to judge the relevance of the solutions to the transformation problem.

Now, taking Moseley (2016) as a recent and representative contribution of reaction to the Sraffa-shock, we must ask: does he only offer one more interpretation to be included in one or another category (probably the qualitative development), or does he also encourage us to think collectively and strategically? Here we must distinguish between the content presented in *Money and Totality* from the action taken around this content.

Regarding the content of the book, I think Moseley's contribution is another interpretation that causes more misunderstanding among Marxist economists than union. It only adds one more view that focuses on an alternative reading of the entire *Capital*. Because it does not envisage the controversy in its entirety, the book aims at the wrong target. The third phase of the debate on the transformation problem will not be overcome if we try to respond to the redundancy claim without pointing to its political motivations, as Engels instructed. So, considering its content, *Money and Totality* seems to be a book written to avoid the complex task of bringing questioning minds together to change economics in practice. No matter how rigorous and faithful to Marx's theory that Moseley's solution is, the book should be better described as both immature and aged from the point of view of content. It repeats a pattern already well established.

Now, with respect to what we should do with this content, we have a much more encouraging situation. If there were no organized discussion around the book, it would not push us forward. Fortunately, Moseley has offered himself to the beasts (reviewers) and is concretely engaged not only to talk, but also to hear. From this perspective, his work is one fine example of communist practice.

Like other currents, *Money and Totality* tackles the transformation problem in a narrow sense. By doing so, it does not adequately consider the political context of the controversy. There is no clear distinction between the critique of contradiction and the critique of redundancy. Because of this, the book does not provide a line of action to overcome the third phase of the debate. It adds one more

perspective, one more interpretation of what Marx has said, without clearly distinguishing the phases of the controversy which have developed along more than 150 years of debate. By engaging with Moseley's interpretation, the reader is well invited to check Marx's writings once again. But that is the same practical effect the New Interpretation and the TSSI already had. At some point, we will have to stop fighting around different interpretations for Marx's *Capital* and face together the problem in its concreteness of the real world.

Moseley thinks that Böhm-Bawerk's inadequate intervention is due to his lack of understanding of Marx's logical method (Moseley 2016, 39, footnote 13). So, it seems that every bourgeois economist should be blamed for not understanding Marx. I do not share this view. It is not a matter of understanding. The enemies of the Political Economy of the working-class act deliberately to diminish socialist economics, including Marx's Critique of Political Economy. They consciously try to turn positive results for our side into negative ones, creating the ideal scenery for misunderstanding and division among us. After more than ten years of research about the matter, I strongly suspect that this is exactly what happened after Sraffa's model debunked the critique of contradiction between value and price in Marx's system.

What about Sraffa? Here I believe rests the gravest failure of *Money and Totality*, as well as other currents that do not understand the extraordinarily positive effect for socialist and Marx's economics given by *Production of Commodities by Means of Commodities*. For too long, people have thought that Sraffa was an enthusiast of Ricardo and an anti-Marxist.

However, recent literature and evidence indicates that Sraffa considered himself a communist, having Marx's theory as his main guide to concretely change economics.¹¹ When we judge the praxis of his work, we must conclude that Sraffa has not only validated Classical Political Economy, but Marx's Political Economy as well. Every offensive against the rehabilitation of both Classical economists and Marx must be understood as a reaction by those who do not wish to allow socialist ideas to spread again within "official economic science," as happened once in the 19th century. Here there must be a clear-cut division between Sraffa and authors that have used Sraffa's model against Sraffa's own political position.¹² In that sense, the response to the critique of redundancy must be different from the response to the critique of contradiction.¹³ Moseley (2016) and others try to answer both critiques without distinguishing them.¹⁴

In sum: the individual reactions to the Sraffa-shock correctly feel that the standard solution has been appropriated by the enemy and that something must be done. However, developing different interpretations is not enough to change reality. In order to turn the analytical solution to the transformation problem provided by the standard scheme, which originated as a pro-Marx and anti-Böhm-Bawerk

argument, into a positive one for our side, we need another pattern of engagement with the topic.

4. Five Steps: A Guide to Collective Engagement with the Transformation Problem

The five steps here presented try to initiate the construction of such a platform. They begin with the explanation of the huge change provoked by Sraffa and finalize with a proposal to revise the relationship between utopian and scientific socialism.¹⁵

First, we should explain how the critique of contradiction between value and price or between Volumes 1 and 3 of *Capital* (Böhm-Bawerk's critique) was substituted by the critique of redundancy of value (Samuelson's critique) and what is the political meaning of this change. The difference between these two anti-socialist/Marxist critiques is essential for grasping Sraffa's effect over the transformation problem. It indicates that we no longer need to solve the transformation problem in its traditional sense again. Neither do we need to erase the transformation problem altogether. What we need to do is to explain the political content of each critique, showing that both use the limits, confusion, and ambivalences among socialist/Marxian economists to divide us into smaller and smaller groups. Here it is also relevant to explain that the accusation of redundancy (and not contradiction) had already appeared at the end of the 19th century and that Engels provided the sketch to identify and repel such attack.

Second, we should explain that envisaging other analytical solutions for the same problem will not lead us out from the third phase of the transformation problem that began in 1971. Trying to assemble one more way to transform values into prices is not an adequate method to engage with the transformation problem, as it entered the third phase in 1971. Solving the quantitative, analytical, "traditional transformation" problem will necessarily lead to the same paradoxes of redundancy. The qualitative development approach has been strongly developed here, but it also does not address the issue completely, because any problem demands both qualitative and quantitative solutions. In order to close the third phase of the transformation problem, we need to leave the abstract realm of justifying the labour theory of value on pure logical reasoning and to act on concrete battles to shape economic science. Also, the empirical approach which tries to defend the labour theory of value from an objectivist standpoint will not do the job. Why? Because the validity of any value theory rests ultimately on its class position regarding the struggle to control the economic output. That means that all value theories are equally valid from the standpoint of logics and empirics, not only because they all are able to explain prices, but mainly because they are expressions

of different social classes struggling to bend the social relations of production towards their own material interests.

Third, we should explain why Sraffa was artificially put against Marx by Samuelson while the Cambridge–Cambridge debate was abandoned. Sraffa's aim was to equip critical economists with a tool able to dismantle the entire building of bourgeois economics represented by marginalism. Marginal value theory was the strongest reaction to the consolidation of socialist and Marxian ideas in the field of Political Economy. But instead of engaging in the Cambridge–Cambridge controversies, Marxist economists thought they had to provide a pure technical justification for the labor theory of value due to Samuelson's (1971) *voilà*. It diverted our attention from the brutal attack suffered by Neoclassical Economics. This allowed the idea to spread that Sraffa and Marx were incompatible. This manoeuvre created the third phase of the transformation problem in which we are today. Why was this done? And much more importantly: what is the concrete result of believing that Marx and Sraffa do not belong together?

Fourth, we should try to complete the practical purpose of Sraffa's *Production of Commodities by Means of Commodities* which is to destroy Neoclassical Economics in order to revive and consolidate officially in Western Academia Classical Political Economy . . . and Marx. Here we come to the real task awaiting the efforts of economic scientists who struggle on the side of workers. Sraffa's model squashed Böhm-Bawerk's critique for good. But this was only a side-effect necessarily steaming out from the main purpose of *Production of Commodities by Means of Commodities*. And what was its main purpose, its practical reason to exist? To restore, not only the surplus approach, but Marx's system of explaining how capitalism functions. This may seem contradictory to some, since there is a huge gap between the physiocratic-Ricardian model and Marx's theory. That is why we need to state one last task which will take us out from the scholastic disputes around the transformation problem and initiate a new phase.

Fifth, we should reconsider the dynamic and dialectical movement of continuity and rupture between Classical Political Economy (and its derivative, utopian socialism) and the Critique of Political Economy (and its derivative, scientific socialism). Sraffa's work has a much more intriguing result for Marx's *Capital* than that known result to the transformation problem in its narrow sense. The solution to the transformation problem means a solution to that old problem already detected by Adam Smith and David Ricardo. Explaining the rationale of price movements and profit rate's dance based on the law of value (on the labour theory of value, as the law of value was once understood) was the true origin of the problem. Having it solved means that the labour theory of value, as it was envisaged before Marx, holds true.

Considering this fifth and last step, we now have another kind of problem. Since the Critique of Political Economy is not equal to Classical Political Economy, the distinction between them must be worked out. However, we do not need any longer to focus on the rupture between them, since this has been done extensively since Isaak Rubin called our attention to the difference between concrete and abstract labour. Today, we need to understand that continuity and rupture coexist in the relationship between Marx's system and the preceding systems that form the entire material for socialist economics in its broader sense. Accordingly, it will be necessary to review our non-dialectical approach to the changing from utopian to scientific (Marxian) socialism to engage more effectively in the field of economics.

5. Conclusion

No matter how strong we believe that Marx's theory is the most advanced to guide the worker's movement, it is a matter of fact that there is a large variety of theoretical currents in favour of socialism. Left-wing economists today are not only too aggressive towards Marxian and communist ideology, but also *too naive* to grasp the difference between utopian and scientific socialism. So, it may be much easier to promote socialist ideas in general before trying to show the specificities of Marxism.

From this perspective, the standard solutions (Sraffian side) for solving the transformation problem may function as arguments for the cause of socialism in general within Western schools of economics, while alternative interpretations (Marxist side) act as guiding instructors towards Marxism. Evidence indicates that Sraffa had in mind that, for the concrete situation of the century in which he lived, pushing his fellow economists onto Marx was too demanding.¹⁶ It is a long way up until there. But, if some of them could be brought to the socialist field in general, then that would already mean a very positive result in the shaping of economic science. It is a concrete intervention considering the constrained reality for expanding socialist ideas (including Marxism) within Western departments of economics, and not a scholastic question about definitions of value and production prices or about how to interpret Marx correctly. That is the true legacy of Piero Sraffa.

So, instead of further debating the peculiarities of the transformation problem without any relation to the concrete task of influencing economics, I believe these five steps should be considered as a suggestion for advancement. The path proposed here may not be the best one. Others much more experienced may indicate a much better practical line of collective action. But I do not doubt that our destiny, as communists working in the field of economics, should be the shaping of economic thought here and now according to the interest of the working class.

Notes

1. That is why Engels ([1894] 2004) refers to “*Conrads Jahrbücher* [Conrad’s Yearbooks], XI, 1885, S. 452–465” when indicating Lexis’s work. This nickname of the journal refers to Johannes Conrad, who was one of the editors of the journal since the 1870s and had a great influence over its editorial policy. On the history of the journal *Jahrbücher für Nationalökonomie und Statistik*, see Krawehl (1977). Engels’s comment is a powerful insight into the political implications of the standard solution to the transformation problem. The following argument relies on a specific passage of Engels’s preface to Volume 3 of *Capital* beginning with “In his critique of the second volume (*Conrads Jahrbücher*, XI, 1885, S. 452–465), Professor Lexis took up the question, although he did not care to offer a direct solution” (Engels [1894] 2004). So, Engels is referring to the work of Wilhelm Lexis called *Die Marx’sche Kapitaltheorie* [Marx Capital Theory] published in the *Jahrbücher für Nationalökonomie und Statistik* [Yearbooks for National Economy and Statistics] (Lexis 1885).
2. Kurz (1995) explains that there were various authors who adopted such understanding in the period between 1870 and 1930, i.e. that the marginal utility theory of value and the labour theory of value (including Marx’s) were not mutually exclusive theories, but two valid analytical perspectives with specific characteristics. For an extensive bibliography list of authors who thought this way, see the seminar on the relationship between marginalist economics and socialism edited by Steedman (1995).
3. The tables bring a representative selection of contributions and are not intended to map all publications.
4. For a detailed account of the contributions of phase 1, see Howard and King (1995) and Schefold (2004). Howard and King (1995) explain that Böhm-Bawerk’s critique was not as clever as other anti-Marxist authors, indicating that some of the authors had already understood that if a solution was found, then the only way to counterpose Marx’s theory was to claim that it was redundant and not contradictory. Such was the position of Sombart and Schmidt, as well as of Wilhelm Lexis.
5. Lucas (2018) argues differently and indicates that there is analytical continuity between Dmitriev ([1898] 1974), Bortkiewicz ([1907] 1949), Shibata (1933), Seton (1957) and Sraffa (1960), even if the authors did not build their models based on a previous one.
6. For details on the phases of the debate, see Camarinha Lopes (2019).
7. The agglutination of these contributions does not mean that there is no relevant difference between them. It means that these differences must be worked out considering the broader context to which I am calling attention to.
8. I refer to Moseley (2016) as a parameter to organize the argument of the paper for two main reasons. First, he makes an extensive review of the reactions to the Sraffa-shock and second, despite offering yet another interpretation with pretension to be the correct one, he is open to engaging in the discussion about strategy and not only content.
9. By the way, that is the same strong point of the New Interpretation of the 1980s. The political influence is significant because the interpretation is only a peripheral tool. The main contribution of these currents is to mobilize, not to solve the technicalities of the transformation problem.
10. For the substitution of the critique of contradiction by the critique of redundancy, see Camarinha Lopes (2013a).
11. See, for example, Bellofiore (2014) and Mongiovi (2017).
12. Neo-Ricardianism and Sraffianism should be understood as vulgar forms of Sraffa’s ideas. They allow the recovery of the surplus approach of Physiocracy and Classical Political Economy but refrain from rehabilitating Marx as well.

13. I thank Bertram Schefold for helping me to discover this.
14. Despite being aware of this difference, as a careful reading of Moseley's answer to David Laibman indicates (Moseley 2016, 365), Moseley does not apply this awareness to address the concrete problems of the controversy of the third phase. He insists on merging both types of critique as one unique attack against Marx's theory. It is true that they represent the same political force against Marxism in economics. However, their content is qualitatively different, demanding us to repel them with different weapons. The analytical approach and the focus on content will not dismantle the accusation of redundancy.
15. This reappraisal seems to be necessary because the relationship between Marx's Political Economy and the most radical streams of socialist economics must always be addressed within circles where Marxism is not the dominant paradigm, as it is the case with economic science in the West. As we can infer from Engels's ([1880] 1973) synthesis, English Political Economy and French Socialist Politics may lead to socialist economics, which is based on the utopian perspective of socialism. Adding to the mixture of German Philosophy as it was appropriated by Marx takes us to a new modality of economic science, rooted in scientific socialism. The solution to the transformation problem necessarily leads the economist to study the continuities and ruptures between Marx and the economists before him, especially the most radical defenders of the labour theory of value who could be labelled as socialists, but not as Marxists.
16. For further details on this, see Camarinha Lopes (2013b), which focuses on the third step of the proposed guide to collective engagement with the transformation problem.

Acknowledgements

I would like to thank the reviewers of the *World Review of Political Economy* who read my submitted manuscript and provided encouraging comments that helped me to focus even more on the appeal for union in this revised version.

References

- Bellofiore, R. 2014. "The Loneliness of the Long-Distance Thinker: Sraffa, Marx, and the Critique of Economic Theory." In *Towards a New Understanding of Sraffa*, edited by R. Bellofiore and S. Carter, 98–240. London: Palgrave Macmillan.
- Böhm-Bawerk, E. von. (1896) 1949. "Karl Marx and the Close of His System." In *Karl Marx and the Close of His System by Eugen von Böhm-Bawerk & Böhm-Bawerk's Criticism of Marx by Rudolf Hilferding*, edited by P. Sweezy, 1–118. New York: Augustus M. Kelley.
- Bortkiewicz, L. von. (1906) 1952. "Value and Price in the Marxian System (Part I)." *International Economic Papers*, no. 2: 5–60.
- Bortkiewicz, L. von. (1907) 1949. "On the Correction of Marx's Fundamental Theoretical Construction in the Third Volume of *Capital*." In *Karl Marx and the Close of His System by Eugen von Böhm-Bawerk & Böhm-Bawerk's Criticism of Marx by Rudolf Hilferding*, edited by P. Sweezy, 197–221. New York: Augustus M. Kelley.
- Camarinha Lopes, T. 2013a. "The Shift from Contradiction to Redundancy in the Critique of the Labour Theory of Value." *International Journal of Pluralism and Economics Education* 4 (3): 263–273.
- Camarinha Lopes, T. 2013b. "Reviving the Cambridge Controversies by Combining Marx with Sraffa." *World Review of Political Economy* 4 (3): 300–322.

- Camarinha Lopes, T. 2019. "The Transformation Problem of Values into Prices: From the Law of Value to Economics Planning." *New Proposals: Journal of Marxism and Interdisciplinary Inquiry* 10 (1): 29–42.
- Charassof, G. 1910. *Das System des Marxismus. Darstellung und Kritik* [The System of Marxism: Presentation and Critique]. Berlin: Hans Bondy.
- Cockshott, P., and C. A. Cottrell. 1998. "Does Marx Need to Transform?" In *Marxian Economics: A Reappraisal*, edited by R. Bellofiore, 70–85. London: Palgrave Macmillan.
- Diehl, K. 1898. *Über das Verhältnis von Wert und Preis im ökonomischen System von Karl Marx* [On the Relationship between Value and Price in the Economic System of Karl Marx]. Jena: Fischer.
- Dmitriev, V. K. (1898) 1974. "The Theory of Value of David Ricardo." In *Economic Essays on Value, Competition and Utility*, edited by D. M. Nuti, 37–95. Cambridge, MA: Cambridge University Press.
- Dobb, M. (1955) 1995. "A Note on the Transformation Problem." In *On Economic Theory and Socialism: Collected Papers*, by M. Dobb, 273–281. London: Routledge & Kegan Paul.
- Duménil, G. 1983–1984. "Beyond the Transformation Riddle: A Labor Theory of Value." *Science & Society* 47 (4): 427–450.
- Engels, F. (1880) 1973. "Die Entwicklung des Sozialismus von der Utopie zur Wissenschaft" [Socialism: Utopian and Scientific]. In *Marx-Engels-Werke*, vol. 19 [Marx and Engels Collected Works, vol. 19]. Accessed April 14, 2021. http://www.mlwerke.de/me/me19/me19_177.htm.
- Engels, F. (1894) 2004. "Vorwort. Das Kapital. Kritik der Politischen Ökonomie. Dritter Band. Hamburg 1894" [Preface to *Capital* Volume III]. *Marx-Engels-Werke*, vol. 25 [Marx and Engels Collected Works, vol. 25]. *Das Kapital, Band III, von K. Marx* [*Capital*, Volume III, by K. Marx]. Accessed April 14, 2021. http://www.mlwerke.de/me/me25/me25_007.htm.
- Farjoun, E., and M. Machover. 1983. *Laws of Chaos: A Probabilistic Approach to Political Economy*. London: Verso Editions and NLB.
- Foley, D. K. 1982. "The Value of Money the Value of Labor Power and the Marxian Transformation Problem." *Review of Radical Political Economics* 14 (2): 37–47.
- Freeman, A., A. Kliman, and A. Wells, eds. 2004. *The New Value Controversy and the Foundations of Economics*. Northampton, MA: Edward Elgar Publishing.
- Garegnani, P. 1984. "Value and Distribution in the Classical Economists and Marx." *Oxford Economic Papers* 36 (2): 291–325.
- Howard, M. C., and J. E. King. 1995. "A Past and Present, But No Abiding Future: The Critical Reception of Volume II of *Capital*, 1894–1900." *History of Economic Ideas* 3 (1): 27–69.
- Johansen, L. 1961. "A Note on Aggregation in Leontief Matrices and the Labour Theory of Value." *Econometrica* 29 (2): 221–222.
- Kliman, A. 2007. *Reclaiming Marx's "Capital": A Refutation of the Myth of Inconsistency*. Idaho Falls, ID: Lexington Books.
- Kliman, A., and T. McGlone. 1999. "A Temporal Single-System Interpretation of Marx's Value Theory." *Review of Political Economy* 11 (1): 33–59.
- Krawehl, O. E. 1977. *Die "Jahrbücher für Nationalökonomie und Statistik" unter den Herausgebern Bruno Hildebrand und Johannes Conrad (1863–1915)* [The Yearbooks of National Economy and Statistics under the Editors Bruno Hildebrand and Johannes Conrad (1863–1915)]. München: Verlag Dokumentation.
- Kurz, H. D. (1995). "Marginalism, Classicism and Socialism in German Speaking Countries, 1871–1932." In *Socialism and Marginalism in Economics: 1870–1930*, edited by I. Steedman, 7–86. London: Routledge.
- Lexis, W. 1885. "Die Marx'sche Kapitaltheorie" [Marx's Capital Theory]. *Jahrbücher für Nationalökonomie und Statistik* [Journal of National Economy and Statistics] 11 (new series): 452–465.

- Lipietz, A. 1982. "The So-Called Transformation Problem Revisited." *Journal of Economic Theory* 26 (1): 59–88.
- Lucas, G. D. 2018. "A re-reabilitação da teoria clássica do valor e o 'problema da transformação'" [The Re-rehabilitation of the Classical Theory of Value and the "Transformation Problem"]. *Economia e Sociedade* 26 (3): 633–662.
- Mattick, P. 1972. "Samuelson's Transformation of Marxism into Bourgeois Economics." *Science & Society* 36 (3): 258–273.
- May, K. 1948. "Value and Price of Production: A Note on Winternitz's Solution." *The Economic Journal* 58 (232): 596–599.
- Meek, R. L. 1956. "Some Notes on the Transformation Problem." *Economic Journal* 66 (261): 94–107.
- Mongiovi, G. 2017. "Sraffa, Capitalist Production and Labor Values: A Comment." *Critical Sociology* 43 (3): 495–507.
- Morishima, M., and F. Seton. 1961. "Aggregation in Leontief Matrices and the Labour Theory of Value." *Econometrica* 29 (2): 203–220.
- Moseley, F. 2016. *Money and Totality: A Macro-Monetary Interpretation of Marx's Logic in Capital and the End of the "Transformation Problem."* Chicago: Haymarket Books.
- Mühlpfort, W. 1895. "Karl Marx und die Durchschnittsprofitrate" [Karl Marx and the Average Profit Rate]. *Jahrbücher für Nationalökonomie* 65: 92–99.
- Pasinetti, L. 1979. *Lectures on the Theory of Production*. London: Palgrave Macmillan.
- Platter, J. 1895. "Die 'Lösung'" [The "Solution"]. *Schweizerische Blätter für Wirtschafts und Sozialpolitik* 3 (5): 161–175.
- Rubin, I. I. (1927) 1978. "Abstract Labor and Value in Marx's System." *Capital & Class* 2 (2): 107–139.
- Samuelson, P. A. 1970. "The 'Transformation' from Marxian 'Values' to Competitive 'Prices': A Process of Rejection and Replacement." *Proceedings of the National Academy of Sciences* 67 (1): 423–425.
- Samuelson, P. A. 1971. "Understanding the Marxian Notion of Exploitation: A Summary of the So-Called Transformation Problem between Marxian Values and Competitive Prices." *Journal of Economic Literature* 9 (2): 399–431.
- Schefold, B. 2004. "Einführung. Der Dritte Band: Herkunft und Wirkung" [Introduction: The Third Volume: Origin and Effect]. In *Das Kapital. Kritik der politischen Ökonomie. Dritter Band* [Capital: A Critique of Political Economy. Volume III.], by K. Marx, 871–910. Berlin: Berlin-Brandenburgische Akademie der Wissenschaften.
- Schmidt, C. 1895. "Der Dritte Band des 'Kapital'" [The Third Book of *Capital*]. *Sozialpolitisches Zentralblatt* 4 (22): 255–258.
- Seton, F. 1957. "The Transformation Problem." *The Review of Economic Studies* 24 (3): 149–160.
- Shaikh, A. M. 1998. "The Empirical Strength of the Labour Theory of Value." In *Marxian Economics: A Reappraisal*, edited by R. Bellofiore, 225–251. London: Palgrave Macmillan.
- Shibata, K. 1933. "The Meaning of the Theory of Value in Theoretical Economics." *Kyoto University Economic Review* 8 (2): 49–68.
- Sombart, W. 1894. "Zur Kritik des Ökonomischen Systems von Karl Marx" [A Critique of the Economic System from Karl Marx]. *Archiv für Sozialwissenschaft und Sozialpolitik* 7: 555–594.
- Sraffa, P. 1960. *Production of Commodities by Means of Commodities: Prelude to a Critique of Economic Theory*. Cambridge: Cambridge University Press.
- Steedman, I. 1977. *Marx after Sraffa*. London: New Left Books.

- Steedman, I., ed. 1995. *Socialism and Marginalism in Economics: 1870–1930*. London: Routledge.
- Sweezy, P. M. 1942. *The Theory of Capitalist Development*. New York: Oxford University Press.
- Tugan-Baranovsky, M. I. 1905. *Theoretische Grundlagen des Marxismus* [Theoretical Foundations of Marxism]. Leipzig: Duncker und Humblot.
- Winternitz, J. 1948. “Values and Prices: A Solution of the So-Called Transformation Problem.” *The Economic Journal* 58 (230): 276–280.