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## Simultaneous Valuation vs. the Exploitation Theory of Profit: A summing up

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### Abstract

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This paper examines the claims made by Simon Mohun and Roberto Veneziani in their Capital and Class #92 article entitled 'The incoherence of the TSSI: a reply to Kliman and Freeman'. We show that they have effectively conceded that simultaneist interpretations of Marx's theory contradict his conclusion that exploitation (workers' surplus labor) is the exclusive source of profit in capitalism. We demonstrate the errors of logic in their claim that the TSS interpretation is incoherent.

The debate thus confirms that the TSS interpretation – contrary to simultaneist interpretations – reproduce all Marx's principal disputed conclusions and therefore constitutes a superior interpretation of his theory of value.

#### Simultaneous Valuation vs. the Exploitation Theory of Profit: A summing up

#### What Is at Stake?

The central issue in this debate has been the incompatibility between simultaneist interpretations and Marx's own theory of profit, as is clear from the title of Andrew Kliman's (2001) initial contribution, "Simultaneous Valuation vs. the Exploitation Theory of Profit."<sup>1</sup> Overturning the conventional wisdom of a quarter-century, our prior contributions have demonstrated that all simultaneist interpretations of Marx's theory contradict his conclusion that exploitation (workers' surplus labor) is the exclusive source of profit in capitalism.

Simon Mohun and Roberto Veneziani (M&V) (2007) simply evade this issue. They do not refute, nor even attempt to refute, our demonstration. Hence, they effectively concede that Marx's theory and simultaneous valuation are indeed incompatible. It is time for the wider community to recognize this as well. As we document below, M&V also fail to respond directly to several other key arguments contained in our response to Mohun's (2003) critique. Instead, they change the subject, railing against what they grandly call the "incoherence" of the temporal single-system interpretation (TSSI) of Marx's value theory and our "seriously deficient" arguments, logic, and reporting of opponents' views (M&V 2007: 139, 144).

The grandness of their rhetoric stands in inverse proportion to the effectiveness and relevance of their arguments. What they actually offer is only a collection of technical and tangential quibbles which evades the significant issues in this debate and which functions principally to cast aspersions upon ourselves and the TSSI. Thus they lambast our demonstration that the TSSI conforms to Marx's theory of profit because we supposedly failed to exclude the possibility that all commodities are free and the possibility that living labour initially creates a negative amount of value in monetary terms. Yet they provide no argument, much less proof, that either of these extreme, hypothetical cases is logically possible. Even if these and other quibbles of theirs were formally correct— and we will show that they are not—the flimsiness of M&V's objections would make clear that they are grasping at straws.

Yet why are M&V trying to discredit the TSSI? We believe that their ultimate target is Marx. The simultaneist interpretations to which they subscribe are defective (as they implicitly concede), since they have been shown to contradict his exploitation theory of profit. But if it can be shown that the TSSI *also* contradicts Marx's theory, then a strong case can be made that Marx, not simultaneism, is at fault—the reason why no interpretation replicates his theoretical conclusions is that they cannot be replicated; his theory is logically incoherent.

And if Marx becomes a dead dog, or at best a source of inspiration without logical coherence, two important consequences follow. First, simultaneist Marxists will no longer have to worry about nor explain away the exegetical inadequacies of their interpretations. Mohun's (2003: 100) wish would become reality: "What is required is not an assessment of [the exegetical adequacy of] rival interpretations, but a theory for today's world and its use in empirical analysis" (Mohun 2003: 100). Second, simultaneist Marxists will have the field to themselves. Marx's own value theory, currently a live alternative to their theories, will no longer be so. The essential function of M&V's contribution, as of so much of the corpus of simultaneist

<sup>&</sup>lt;sup>1</sup> Simultaneist interpretations—the dual-system interpretations derived from Bortkiewicz, the New Interpretation (NI), and the simultaneous single-system interpretations (SSSIs)—hold that inputs and outputs in Marx's theory are valued simultaneously, which implies that per-unit prices and values of inputs and outputs are necessarily equal.

Marxism contributions, is suppressive and antipluralist: its function is to rule Marx himself out of court whilst keeping it free for his Marxist economist critics.

#### What Has Been Established

Our previous contributions to this debate have demonstrated the following propositions:

- (1) All simultaneist interpretations of Marx's value theory contradict his conclusion that workers' surplus labor is the exclusive source of capitalists' profit, because they imply the logical possibility of profit without surplus labour and surplus labour without profit (Kliman 2001: 99–103).
- (2) The Okishio–Morishima "Fundamental Marxian Theorem" (FMT) and similar theorems do not refute (1). They merely show that, under simultaneist definitions, both profit and surplus labor are necessarily positive in *imaginary* economies in which the net product of every good is positive at every moment (Kliman 2001: 99–103).<sup>2 3</sup>
- (3) Economies can and do reproduce themselves without satisfying this restriction: negative net products exist (Kliman 2001: 103–05; Mohun 2003: 98; Kliman and Freeman (K&F) 2006: 118–19).
- (4) Whenever the aggregate money price of the net product (PNP) is negative, the New Interpretation and simultaneous single-system interpretations imply, contrary to Marx's theory, that profit is negative when surplus labour is positive (Kliman 2001: 100–02; Mohun 2003: 100).
- (5) A negative PNP is logically possible (Kliman 2001: 100–02).

Mohun (2003) explicitly acknowledged that (3) and (4) are correct. He also implicitly acknowledged that (1), (2), and (5) are correct (Mohun 2003: 98). Mohun and Veneziani (M&V) (2007) likewise fail to challenge any of these propositions. Thus, there is no disagreement about the central claim put forward in Kliman's (2001) original contribution: *all simultaneist interpretations fail to replicate Marx's theory of profit in a logically robust manner*.

Our previous contributions have also demonstrated that

- (6) Mohun's (2003: 99) claim that the temporalist MELT is negative whenever the PNP is negative is not correct (K&F 2006: 120–21).
- (7) Even if the PNP were always positive, surplus labour would still not be the exclusive source of profit under simultaneism, because something more—a positive PNP— would be needed in order to guarantee that profit is positive (K&F 2006: 118–20).
- (8) A negative PNP is "economically possible" in Mohun's (2003: 98) sense (Kliman 2003).<sup>4</sup>

 $<sup>^{2}</sup>$  In any period, the physical net product of a good is the difference between the amount of it produced and the amount of it used up as an input throughout the economy.

 $<sup>^{3}</sup>$  Other versions of the FMT apply only when all profit rates are always equal (and positive). These theorems would likewise not refute (1) even if that restriction were satisfied in the real world, which it is not.

<sup>&</sup>lt;sup>4</sup> To be "economically possible" as defined by Mohun (2003: 98), a negative PNP must result from "an economic structure capable of physical reproduction, in which net products are the outcome of profit maximizing choices, and in which a price path is determined by some rule other than imagination."

M&V fail to challenge, and thereby implicitly concede (6) and (7).<sup>5</sup> In response to (8), they "leave it to the interested reader to judge the empirical plausibility of Kliman's constructed numerical examples" which demonstrated that a negative PNP is "economically possible" (M&V 2007: 141). Were they able to disprove these examples, they surely would have done so instead of dumping the problem in the reader's lap. Moreover, their new demand for "empirical plausibility," for which they provide no justification, is a diversion from Mohun's original challenge to produce "economically possible" examples.

Finally, our previous contributions have demonstrated that

- (9) If the temporalist monetary expression of labour-time (MELT),  $\tau$ , is positive, then the TSSI replicates Marx's conclusion that workers' surplus labor is the exclusive source of profit in capitalism. According to TSSI definitions, real profit will always be positive when, but only when, surplus labour is positive (Kliman 2001: 108).
- (10) If the total price of output *P*, total living labor *L*, and the initial temporalist MELT,  $\tau(0)$ , are all positive, and if the total price of inputs used-up in production, *C*, is positive or zero, then  $\tau$  must always be positive thereafter. (Kliman 2001: 108; Mohun 2003: 99, K&F 2006: 125n6).
- (11) Under commodity production, it is indeed the case that  $\tau(0) > 0$ , and that, at all times, P > 0, L > 0, and  $C \ge 0$  (K&F 2006: 122–23). Thus the TSSI replicates Marx's exploitation theory of profit (Kliman 2001: 108).

Mohun (2003: 98–99) explicitly acknowledged that Propositions (9) and (10) are correct, and M&V (2007) do not challenge them. Thus, of the eleven propositions we have demonstrated, only the final one, (11), is still contested.

#### Proof that the TSSI Replicates Marx's Theory

M&V put forward two objections to (11). First, they deny that we proved that P > 0. They concede that we showed that no prices or output levels can be negative and that some must be positive. However, they argue, P will nonetheless equal 0 if none of the commodities that have positive prices are produced! (M&V 2007: 142). This argument relies on a very uncharitable reading of our proof that isn't consonant with our intended meaning. We noted that "commodity production is incompatible with cases in which all prices are zero" (K&F 2006: 122). Here and later in that paragraph, we were referring to prices *of things that actually exist*. This should have been obvious: if something doesn't exist, neither does the price of it!<sup>6</sup> But for the benefit of the rigorous M&V, we shall now "revise" our "incoherent" and "seriously deficient" (M&V 2007: 139) proof accordingly:

Under commodity production, as we showed, P < 0 is impossible and P = 0 only if all prices *of things that actually exist* are zero. But commodity production is incompatible with cases in which all prices *of things that actually exist* are zero. Hence P > 0.

<sup>&</sup>lt;sup>5</sup> In an apparent response to (2) through (5) as well as (7), Mohun and Veneziani (2007: 140–41) suggest that unrealistic theories may have explanatory power. This argument—to which we have responded twice already (Kliman 2001: 98; K&F 2006: 119–20)—is simply irrelevant here, where the issue is the logical validity of *theorems*, not the explanatory power of *theories*. <sup>6</sup> If one contracts for the future delivery of things that don't currently exist, the contract exists,

and therefore so does the price of the contract, but that is a different matter.

Second, M&V (2007: 143) claim that we failed to show that  $\tau(0) > 0$  by means of "logical deduction"; we just made a "series of assumptions." In their characterization of our proof, we "[s]uppose that a unit of money in period 0 commands a positive and finite amount of labour," and we fail to explain "what is meant by 'the amount of labour the commodity commands in exchange" (M&V 2007: 143).

These claims seriously misrepresent what we wrote. We did not *suppose* that a unit of money in period 0 commands a positive and finite amount of labour. Our proof instead invoked this *historical fact* as a premise: "On any date arbitrarily selected as the initial one, a unit of money in period 0 commanded a positive and finite amount of labour—one could buy a finite amount of products of labour with it" (K&F 2006: 122-23). Contrary to what M&V assert, moreover, the final clause explains precisely "what is meant by 'the amount of labour the commodity commands in exchange." The remaining steps of our proof were a definition of  $\tau$ , the *fact* that the price of a unit of money equals 1, and results derived from the other steps. Thus M&V's challenge to the proof fails.<sup>7</sup>

#### **M&V's Other Quibbles**

We shall now briefly respond to M&V's other quibbles.

A. They take an equation of ours that illustrates that  $\tau$ , the temporalist MELT, must be positive even when the simultaneist MELT is negative. Then they assume that  $\tau$  remains constant. Once they've imposed this condition,  $\tau$  becomes negative. "This is supposed to illustrate that ' $\tau$  must always be positive'" (M&V 2007: 142, emphasis in original), they proclaim triumphantly.

But M&V's "logic" is preposterous. By the same "logic," we can prove that 0 = 1. Denote Veneziani's age now, and in one year, as A(t) and A(t + 1), respectively. Thus A(t + 1) = A(t) + 1. Now assume, in M&V fashion, that A is constant. Thus A(t + 1) = A(t). Subtracting this equation from the one above, we find that 0 = 1. Q.E.D.

The point is that, given the conditions specified in the first equation, the second equation (constancy of  $\tau$ , constancy of A) is impossible. In our example, it is obvious that the labor-time value of the commodity constantly increases, since the production of one unit of the commodity required more than one unit of the commodity as an input, plus living labor. But the example also assumes that the commodity's price is constant. Hence  $\tau$ , the ratio of price to value, must continually fall. It cannot be constant.

B. M&V reiterate Mohun's (2003: 95) complaint that  $\tau$  is "undefined" (M&V 2007: 142–43). But Mohun (2003: 94) contradicted himself, noting correctly that Kliman "defined"  $\tau$  in two equivalent ways, and M&V (2007: 142, emphasis added) likewise acknowledge that one of these definitions "serves to *define* the MELT of one period in terms of the preceding period's MELT." Will they please make up their minds? And will they please define their undefined term "undefined"?

The real issue seems to be, not that the *concept* of the temporalist MELT is "undefined," but that its *numerical value* is supposedly subject to an "infinite regress" (M&V 2007: 142),

<sup>&</sup>lt;sup>7</sup> In case M&V object that we have provided no algorithm to determine exactly how much labour a unit of money commanded in period 0, we note that our proof requires no such algorithm. We showed that this amount of labor commanded was positive and finite, and that  $\tau(0)$  was consequently positive and finite as well, which is all that we needed to show.

since the input MELT of one period is the output MELT of the previous period, which in turn depends upon the input MELT of that period, .... As Kliman (2007: 155n10) has recently noted in a similar context, "Anyone who agrees with this objection must, to be consistent, object to the notion that the physical inputs of one period depend upon the physical outputs of the previous period, which in turn depend upon the physical inputs of that period, ...." If M&V wish to renounce the physical quantities approach they currently embrace because of this "infinite regress" and the fact that inputs and outputs are "undefined" (i.e., their magnitudes are determined temporally), we certainly have no objection.<sup>8</sup>

C. Our proof that  $\tau(0) > 0$  makes no reference to prior periods. If this is valid, M&V (2007: 143) argue, "it is possible to consider [any subsequent]  $\tau(t)$  as determined by variables at *t* only (and not at previous dates); but this contradicts" an equation of ours which states that one period's MELT depends in part on the prior period's MELT. They fail to understand the difference between how something is expressed and how it is determined. At every moment, the MELT can be *expressed* as the reciprocal of the amount of labour commanded by a unit of money and, equivalently, as the ratio of the money price of output to the labor-time value of output. But the magnitude of the MELT is always *determined* intertemporally, since the amount of labor commanded, and the price and value of output, depend in part upon prior events.

M&V (2007: 143) also complain about our supposed "confusion in determination"; we "define" a commodity's price as  $\tau$  times the amount of labor the commodity commands, but then "determine"  $\tau$  using the "labour commanded price of money." This statement evinces basically the same misunderstanding. We *expressed* a commodity's price as  $\tau$  times the amount of labour the commodity commands in exchange. And we showed that this implies that the magnitude of  $\tau$  is *determined* by the amount of labour commanded by a unit of money (which in turn is determined partly by prior events).

D. Kliman (2001: 106, emphasis altered) stated, "To demonstrate that the exploitation theory of profit holds *under this interpretation* [the TSSI], in other words, absolutely no restrictive postulates are required." M&V (2007: 141) object, claiming that "the TSSI FMT require[s] a particular theoretical concept of temporality, a particular understanding of the measurement of value, and some particular sign restrictions." But we have proved, and proved again, that the alleged "sign restrictions" ( $\tau(0) > 0, P > 0$ , etc.) always hold true. And as we have already explained (K&F 2006: 125n7), the rest of this complaint reduces to the tautology that we used the TSSI in order to prove that Marx's theory holds under the TSSI! Thus Kliman's statement that Marx theory holds without restrictions *under this interpretation* is precise and correct.

E. M&V (2007: 140) claim that Kliman (2001: 99, emphasis in original) was "misleading" when he stated that "*general versions* of the FMT ... prove that the theorem holds for any set of positive market prices." They object that Roemer's FMT only "holds for prices that support a reproducible solution" (M&V: 140). So what? This simply means that Roemer's FMT is not among the most general ones. Kliman's statement remains correct, because more

<sup>&</sup>lt;sup>8</sup> The whole of M&V's objection in fact reduces to a refusal to accept an exceptionally standard procedure in any science that makes use of difference or differential calculus, namely the introduction of an initial condition. It is a measure of the obscurity and isolation from all other sciences which the simultaneous approach has introduced into economics that our procedure is still treated by some economic writers as questionable.

general versions of the FMT do exist. The FMTs of Okishio and Morishima, cited in our prior contributions, *do* indeed prove that the theorem holds for any set of positive market prices.

F. "Kliman's numerical example ... which demonstrates that if one of the conditions for the FMT does not hold, then the FMT does not hold, is quite beside the point" (M&V: 140). The example in question showed that the standard simultaneist FMT does not hold unless the restrictive "conditions for the FMT" are satisfied. It thereby showed that this FMT fails to prove that surplus labor is the exclusive source of profit: if positive profit requires not only surplus labor, but also additional restrictive "conditions for the FMT," surplus labor is not the exclusive source of profit. This is not beside the point; it *is* the point.

Thus, if Roemer's FMT imposes the restriction that "prices [must] support a reproducible solution," as M&V acknowledge, so much the worse for it. It cannot and does not prove that surplus labor is the exclusive source of profit. Attempting to escape from a logical contradiction in a *general* theory by restricting oneself to circumstances that wish away the embarrassing problem does not confirm the theory! It simply demonstrates that there are particular circumstances under which it holds. For instance, if the Fundamental Magic Stick Theorem says that M&V will always stay dry if they wave their magic stick at the sky, they will indeed avoid getting wet if they restrict themselves to days without precipitation, but this is obviously no proof of the FMST.

G. "Because [the TSSI concept] include[s] inventory revaluation effects as part of the new value created by labour, value is dissociated from labour performed," contrary to the "labour theory of value" (M&V 2007: 144). However, the equation to which M&V refer includes no inventories and thus no "inventory revaluation"; *used-up* inputs are not inventories. Moreover, M&V's (2007: 144) alternative equation is incoherent and seriously deficient, since it uses the MELT of time *t* to deflate output prices of time t + 1. Once that internal inconsistency is corrected, their alternative equation becomes the standard New Interpretation definition of value added, returning us to a "labour theory of value" that contradicts Marx's conclusion that exploitation of workers in capitalist production is the exclusive source of profit.

#### Conclusion

The TSSI interpretation of the new value created by living labour, which M&V reject, is the *only* one in existence that deduces, rather than contradicts, Marx's exploitation theory of profit. Simultaneist interpretations must therefore be rejected as implausible, as we and Mohun have discussed before (Mohun 2003, K&F 2006). M&V and other simultaneists are entitled to their own versions of "the" labour theory of value, of course, including versions that contradict the exploitation theory of profit. But Marx is equally entitled to his theory, especially because all efforts to prove it internally inconsistent, including M&V's latest effort, have failed.

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