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# The "Macro-monetary" Interpretation of Marx's Theory: A Reply to Ravagnani's Critique 

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#### Abstract

This paper responds to Ravagnani's critique of my "macro-monetary" interpretation of Marx's theory. The first section briefly reviews the key points of my interpretation, with special emphasis on the determination of the initial inputs of constant capital and variable capital. The second section replies to Ravagnani's criticism that my interpretation is subject to a severe "analytical limitation." The third section presents a brief summary of the textual evidence related to the determination of constant capital and variable capital in Marx's theory. The final section makes a radical suggestion for consensus.


## JEL classification: E11, D46

Keywords: Marx; transformation problem

Fabio Ravagnani has argued in this journal (2005) that my "macro-monetary" interpretation of Marx's theory (as presented in Moseley 2000)—according to which the initial inputs of constant capital and variable capital are taken as given, as the quantities of money capital advanced to purchase means of production and labor-power in the first phase of the circulation of capital-is not supported by the textual evidence from Capital, and is instead contradicted by much textual evidence. Ravagnani argued further that my interpretation implies that the price of production of the net output is proportional to the labortime embodied in the net output, which is "wholly artificial" and is thus an "analytical limitation." I welcome Ravagnani's criticisms and the opportunity to debate these important issues.

My reply is organized as follows: first, I will briefly review the key points of my "monetary" interpretation of the initial inputs of constant capital and variable capital in

[^0]Marx's theory. Next, I will consider Ravagnani's criticism concerning the "analytical limitation" of my interpretation. Then I will present a brief summary of textual evidence related to the determination of constant capital and variable capital in Marx's theory. Finally, as a conclusion, I make a radical suggestion for consensus between these opposing views. A longer version of this paper, which provides more detailed textual support for the argument outlined here, is available on my website at www.mtholyoke.edu/~fmoseley.

## I. Macro-monetary Interpretation ${ }^{1}$

The "macro" part of my interpretation emphasizes that volume 1 is mainly about the production of surplus-value, or the determination of the total surplus-value in the economy as a whole. Volume 1 is about the total class relation between the working class as a whole and the capitalist class as a whole. The most important aspect of this general class relation is the total surplus-value produced by the working class as a whole for the capitalist class as a whole. That is the main question to which volume 1 is devoted. Volume 3 is mainly about the distribution of surplus-value, or the division of the total surplus-value into individual parts: first the equalization of the profit rate across individual industries and the determination of prices of production; and then the further division of the total surplusvalue into commercial profit, interest, and rent. In this theory of the distribution of surplusvalue, the total amount of surplus-value is taken as given, as already determined by the theory of the total surplus-value in volume 1 (for more on the "macro" part of my interpretation, see Moseley 1997, 2002, and 2004). Others who have emphasized the prior determination of the total surplus-value in Marx's theory include Paul Mattick (1969), David Yaffe (1976), and Duncan Foley (1986).

The "monetary" part of my interpretation of Marx's theory emphasizes that the general analytical framework of Marx's theory is the circulation of money capital: ${ }^{2}$

$$
\mathrm{M}-\mathrm{C} \ldots \mathrm{P} \ldots \mathrm{C}^{\prime}-\mathrm{M}^{\prime} \quad \text { where } \mathrm{M}^{\prime}=\mathrm{M}+\Delta \mathrm{M}
$$

Surplus-value is defined as the increment of money, or $\Delta \mathrm{M}$, which emerges at the end of the circulation of money capital, and this $\Delta \mathrm{M}$ is the main purpose of capitalist production and the most important phenomenon to be explained in Marx's theory of capitalism. As Marx succinctly described this all-important phenomenon that is the main question in his theory: "Before production, we had a capital of $£ 500$. After production is over, we have a capital of $£ 500$ plus a value increment of $£ 100$ " (Marx 1894: 124).

I argue that the structure of the circulation of capital suggests in two ways that the initial money capital (M) is taken as given in Marx's theory, both in the theory of the total sur-plus-value in volume 1 and in the theory of the distribution of surplus-value in volume 3 . In the first place, M is the starting point of the circulation of capital, which suggests that $M$ is also the starting point, or the initial givens or presuppositions, in Marx's theory of the circulation of capital. Second, the first phase of the circulation of capital is the advance of

[^1]money capital to purchase means of production and labor-power ( $M-C$ ), which takes place in the "sphere of circulation," prior to the second phase of production. Marx's theory of the circulation of capital also begins in the sphere of circulation (in part 2 of volume 1), with the advance of definite quantities of money constant capital and money variable capital to purchase means of production and labor-power. Thus, when the second phase of the production of value and surplus-value begins, as analyzed in part 3 and beyond, the quantities of constant capital and variable capital are assumed to have already been advanced in the sphere of circulation to purchase means of production and labor-power. These already existing quantities of constant capital and variable capital are taken as given in Marx's theory of how this previously existing given quantity of money capital becomes more money in the subsequent phases of the circulation of capital.

And the crucial point is that the same quantities of money capital are taken as giventhe actual quantities of money capital advanced to purchase means of production and laborpower in the first phase of the circulation of capital-both in the macro theory of the total surplus-value in volume 1 and in the micro theory of individual prices of production in volume 3. The only difference is that, in volume 3 , the individual quantities of money capital advanced in each industry are taken as given, in addition to the total quantity of money capital for the economy as a whole. The sum of the individual quantities of money capital taken as given in the volume 3 theory of prices of production is by definition equal to the total quantity of money capital that is taken as given in the volume 1 theory of the total surplus-value.

The reason why the quantities of constant capital and variable capital do not change, or do not have to be transformed, in the transition from the macroeconomic theory of the total surplus-value in volume 1 to the microeconomic theory of individual prices of production in volume 3 is because the same quantities of constant capital and variable capital are taken as given in both stages of the theory: the actual quantities of money capital advanced and consumed in the first phase of the circulation of capital. In other words, these given quantities of money constant capital and variable capital "remain invariant" in the transition from the macro theory of the total surplus-value in volume 1 to the micro theory of the individual parts of surplus-value and prices of production in volume 3. Marx did not "fail to transform these inputs" because the inputs do not have to be transformedinstead they remain invariant.

The longer version of this paper presents an algebraic summary of my interpretation of Marx's theory of value and surplus-value and prices of production, which I hope the interested reader will consult for further clarification. ${ }^{3}$

It follows from this interpretation that Marx's two aggregate equalities (total price of production $=$ total value, and total profit $=$ total surplus-value) are always both true simultaneously, as Marx himself argued (see Moseley 1993 for a demonstration of these two aggregate equalities). These two aggregate equalities are not conditional equalities, which may or may not be true depending on the composition of capital in individual industries, but

[^2]are instead identities that are true by assumption, or due to the nature of Marx's logical method (the prior determination of the total surplus-value and the initial money capital taken as given).

## 2. "Analytical Limitation"?

Ravagnani argues that my interpretation of Marx's theory implies (assuming commodity money) that the net output exchanges for a quantity of the money commodity that contains the same amount of labor-time as the net output; or, one could say that the price of production of the net output is proportional to the labor-time embodied in the net output. ${ }^{4}$ This alleged implication is "wholly artificial" because, according to Marx's theory, commodities do not, in general, exchange for a quantity of gold that contains the same amount of labor-time, or the prices of production of commodities are in general not proportional to the labor-values contained in them.

Ravagnani's argument can be summarized in the following five steps:

1. To begin with, Ravagnani argues that the money receipts from the sale of the net output ( pz ) is identically equal to the sum of the total variable capital (V) and the total profit or surplus-value ( S ) in the economy as a whole (as expressed by Ravagnani's equation [8]):

$$
\begin{equation*}
\mathrm{V}+\mathrm{S} \equiv \mathrm{pz} \tag{1a}
\end{equation*}
$$

I prefer to express this identity in terms of the price of production of the net output $\left(\mathrm{PP}_{\mathrm{z}}\right)$, because the variables in Marx's theory are scalar magnitudes, rather than vectors:

$$
\begin{equation*}
\mathrm{V}+\mathrm{S} \equiv \mathrm{PP}_{\mathrm{z}} \tag{1b}
\end{equation*}
$$

2. Ravagnani next notes that my interpretation assumes that the money value produced in the economy as a whole $\left(\mathrm{mL}_{\mathrm{c}}\right)$ is divided into variable capital and surplus-value for the economy as a whole, his equation (9):

$$
\begin{equation*}
\mathrm{V}+\mathrm{S}=\mathrm{mL}_{\mathrm{c}} \tag{2}
\end{equation*}
$$

where $L_{c}$ is the quantity of labor currently employed in the economy as a whole, and $m$ is the money value produced per hour (i.e., the "monetary expression of labor-time" or the "MELT"), which (under Marx's assumption of commodity money) is equal to the quantity of gold produced per hour.
3. Combining equations (1b) and (2), we obtain the following equality between the price of production of the net output and the new value produced in the economy as a whole:

[^3]Table I
Two Different Methods to Total Labor

|  | Past Labor | Current Labor | Total Labor |
| :--- | :---: | :---: | :---: |
| K sector | $\mathrm{L}_{\mathrm{kp}}$ | $\mathrm{L}_{\mathrm{kc}}$ | $\mathrm{L}_{\mathrm{k}}$ |
| Z sector | $\mathrm{L}_{\mathrm{zp}}$ | $\mathrm{L}_{\mathrm{zc}}$ | $\mathrm{L}_{\mathrm{z}}$ |
| Total | $\mathrm{L}_{\mathrm{p}}$ | $\mathrm{L}_{\mathrm{c}}$ | $\mathrm{L}^{2}$ |

$$
\begin{equation*}
\mathrm{PP}_{\mathrm{z}}=\mathrm{mL}_{\mathrm{c}} \tag{3}
\end{equation*}
$$

(Ravagnani does not express this step algebraically in his paper, but has added a similar equation in subsequent correspondence in terms of pz rather than $\mathrm{PP}_{\mathrm{z}}$.)
4. Ravagnani argues next that the net output must contain the same amount of labor $\left(\mathrm{L}_{\mathrm{z}}\right)$, as is currently employed in the economy as a whole, i.e.,

$$
\begin{equation*}
L_{z}=L_{c} \tag{4}
\end{equation*}
$$

I will dispute this key point below.
5. Finally, substituting $L_{z}$ for $L_{c}$ in equation (3) yields:

$$
\begin{equation*}
\mathrm{PP}_{\mathrm{z}}=\mathrm{mL}_{\mathrm{z}} \tag{5}
\end{equation*}
$$

In words, the price of production of the net output is proportional to the labor-time contained in the net output, or is equal to the quantity of the money commodity that contains the same amount of labor as the net output. Ravagnani argues that this conclusion is "wholly artificial" because there is no reason to expect that the net output will be exchanged for a quantity of the money commodity that contains the same amount of labor. This artificial result is the alleged "analytical limitation" of my interpretation of Marx's theory.

The key equality of $L_{c}$ and $L_{z}$ in step 4 is simply asserted by Ravagnani, not explained or derived. Ravagnani's argument seems to presume that there are two ways of adding up the total quantity of labor embodied in the gross output of the economy (L). These two ways can be explained as follows: if the economy is divided into two main sectorsreplacement means of production $(\mathrm{K})^{5}$ and net output $(\mathrm{Z})^{6}$ and the labor contained in the output of each sector is divided into two components (the past labor contained in the means of production consumed $\left[\mathrm{L}_{\mathrm{p}}\right]$ and the current labor employed $\left[\mathrm{L}_{\mathrm{c}}\right]$ )-then these various components of labor can be represented by Table 1.

These two different ways of adding up the total labor contained in the gross output can be expressed as follows: the first way is to add up the past labor and the current labor contained in the gross output (i.e., a horizontal sum of the third row in the above table):

$$
\begin{equation*}
\mathrm{L}=\mathrm{L}_{\mathrm{p}}+\mathrm{L}_{\mathrm{c}} \tag{6}
\end{equation*}
$$

[^4]The second way is to add up the total labor contained in each of the two sectors (a vertical sum of the third column):

$$
\begin{equation*}
\mathrm{L}=\mathrm{L}_{\mathrm{k}}+\mathrm{L}_{\mathrm{z}} \tag{7}
\end{equation*}
$$

Rearranging equation (6), we obtain:

$$
\begin{equation*}
\mathrm{L}_{\mathrm{c}}=\mathrm{L}-\mathrm{L}_{\mathrm{p}} \tag{8}
\end{equation*}
$$

And rearranging equation (7), we obtain:

$$
\begin{equation*}
\mathrm{L}_{\mathrm{z}}=\mathrm{L}-\mathrm{L}_{\mathrm{k}} \tag{9}
\end{equation*}
$$

We can see from equations (8) and (9) that $L_{z}$ is equal to $L_{c}$, only if $L_{k}=L_{p}$; i.e., only if the labor embodied in the means of production newly produced $\left(\mathrm{L}_{\mathrm{k}}\right)$ is equal to labor embodied in the means of production consumed $\left(\mathrm{L}_{\mathrm{p}}\right)$. Ravagnani asserts that $\mathrm{L}_{\mathrm{k}}=\mathrm{L}_{\mathrm{p}}$, and therefore that $\mathrm{L}_{\mathrm{z}}=\mathrm{L}_{\mathrm{c}}$, from which it follows that $\mathrm{PP}_{\mathrm{z}}=\mathrm{mL}_{\mathrm{z}}$, as in equation (5).

However, Ravagnani's assertion is based on the assumption that the means of production consists of circulating capital goods only; it is not valid in the more general and realistic case, including fixed capital goods. In the simple case of circulating capital only, the means of production that are consumed and the means of production that are newly produced are the same commodities, which are replaced in kind every period, from which it follows that $\mathrm{L}_{\mathrm{k}}$ must $=\mathrm{L}_{\mathrm{p}}$ (assuming no change in productivity). However, in the more general and realistic case, including fixed capital goods, this equality is in general not true. In this case, the consumed fixed capital goods are, in general, not the same commodities as the newly produced fixed capital goods, for two reasons. In the first place, not all types of fixed capital goods are replaced every year; the fixed capital goods consumed are a part (the depreciation part) of all the fixed capital goods in the economy as a whole, and the newly-produced fixed capital goods are only a subset of all the fixed capital goods. Second, because of the irregular replacement patterns of fixed capital goods, even for the types of fixed capital goods that are replaced in a given year, the depreciated quantities of these consumed fixed capital goods are usually not equal to the quantity of these goods that are newly produced in that year. (Marx attributed this irregular replacement pattern of fixed capital goods to the inherent "anarchy of capitalism" [Marx 1894: 544-45].)

In effect, two different bundles of fixed capital goods are exchanged for one another: (1) the depreciated quantities of all fixed capital goods, and (2) the different quantities of a subset of all fixed capital goods. The money recovered from the depreciation component of all fixed capital goods is used to purchase the subset of newly-produced fixed capital goods. Because these two different bundles of fixed capital goods are in effect exchanged for each other, and because all exchanges are assumed to be at prices of production, then these two different bundles of fixed capital goods must have the same price of production. The depreciation component of the price of production of all commodities is a part of the price of production of all the fixed capital goods consumed, and the price of newly produced fixed capital goods is the price of production of a subset of all fixed capital goods.

On the other hand, because the prices of production of commodities are, in general, not proportional to the labor-times embodied in them, it follows that these two different
bundles of fixed capital goods, that have equal prices of production, do not have equal quantities of labor-time embodied in them. With prices of production, commodities that contain unequal quantities of labor-time are exchanged, and this general rule applies to fixed capital goods as well. Algebraically, this means that $P_{k}=P_{p}$, but $L_{k} \neq L_{p}$, from which it follows that $\mathrm{L}_{\mathrm{z}} \neq \mathrm{L}_{\mathrm{c}}$, and hence that $\mathrm{PP}_{\mathrm{z}} \neq \mathrm{m} \mathrm{L}_{\mathrm{z}}$, contrary to Ravagnani's conclusion.

Thus we can see that Ravagnani's conclusion-that the price of production of the net output is proportional to the labor-time embodied in it—is indeed "wholly artificial." But this artificiality is not due to my "macro-monetary" interpretation of Marx's theory, but is instead due to the artificial assumption of circulating capital only.

Furthermore, even in the unrealistic case of circulating capital only, Ravagnani's conclusion that the price of production of the net output is proportional to the labor-time embodied in it (i.e., $\mathrm{PP}_{\mathrm{z}}=\mathrm{mL}_{\mathrm{z}}$ ) does not contradict Marx's theory of value and prices of production, because it does not imply that the price of production of the net output is equal to the value of the net output (which would contradict Marx's theory). According to my interpretation of Marx's theory, the value of commodities $(\mathrm{P})$ is equal to the sum of the constant capital transferred from the consumed means of production (C) plus the newvalue produced by current labor $\left(\mathrm{N}=\mathrm{mL}_{\mathrm{c}}\right):^{7}$

$$
\begin{equation*}
\mathrm{P}=\mathrm{C}+\mathrm{N}=\mathrm{C}+\mathrm{mL}_{\mathrm{c}} \tag{10}
\end{equation*}
$$

where $L_{c}$ is the hours of current labor and $m$ is the money value produced per hour (i.e., the MELT). The constant capital component of the value of commodities is equal to the money capital consumed in the production of commodities, which is equal to the price of production of the consumed means of production $\left(\mathrm{PP}_{\mathrm{p}}\right)$, and which is not proportional to the labor-time embodied in the consumed means of production $\left(\mathrm{mL}_{\mathrm{p}}\right)$ (i.e., $\mathrm{C}=\mathrm{PP}_{\mathrm{p}} \neq \mathrm{mL}_{\mathrm{p}}$ ). This is a key point of my "monetary" interpretation of the initial givens in Marx's theory, expressed most simply in the phrase "the cost price is the same" in the determination of both values and prices of production, discussed below in the next section. ${ }^{8}$ Applied to the net output, this means that the constant capital component of the value of the net output $\left(\mathrm{PP}_{\mathrm{zp}}\right)$ is not proportional to the labor-time embodied in the means of production consumed in the production of the net output $\left(\mathrm{mL}_{\mathrm{zp}}\right)\left(\mathrm{C}_{\mathrm{z}}=\mathrm{PP}_{\mathrm{zp}} \neq \mathrm{mL}_{\mathrm{zp}}\right)$, and thus that the total value of the net output $\left(\mathrm{P}_{\mathrm{z}}\right)$ is not proportional to the total labor-time embodied in it $\left(\mathrm{mL}_{\mathrm{z}}\right)$ (i.e., $\mathrm{P}_{\mathrm{z}} \neq \mathrm{mL}_{\mathrm{z}}$ ). Therefore, even though the price of production of the net output is proportional to the labor-time embodied in the net output $\left(\mathrm{PP}_{\mathrm{z}}=\mathrm{mL}_{\mathrm{z}}\right)$ in the case of circulating capital only, this does not contradict Marx's theory, because the price of production of the net output would not be equal to the value of the net output $\left(\mathrm{PP}_{\mathrm{z}} \neq \mathrm{P}_{\mathrm{z}}\right)$. In the longer version of this paper, I present a detailed numerical example that illustrates this conclusion.

This conclusion also applies to the case of fixed capital goods in the very unlikely event that there is exact replacement of fixed capital goods from one period to the next, in which case $\mathrm{PP}_{\mathrm{z}}=\mathrm{mL}_{\mathrm{z}}$.

[^5]
## 3. Textual Evidence

A full discussion of the textual evidence related to the crucial question of how constant capital and variable capital are determined in Marx's theory far exceeds the space limitations of this paper. The longer version of this paper includes an extensive section that presents the main textual evidence, supports my interpretation, and re-examines Ravagnani's textual evidence in detail. In this section, I will briefly summarize the main points of this longer discussion, and refer the reader to the longer paper for specific passages and references.

The main textual evidence that supports my interpretation-that constant capital and variable capital are taken as given, as the quantities of money capital advanced to purchase means of production and labor-power in the first phase of the circulation of capital-are the following:
(1) Marx's emphasis on the circulation of money capital as the general analytical framework of his theory. As discussed in section 1 above, the structure of the circulation of capital suggests in two ways that the initial money capital is taken as given, because the circulation of capital begins with money, and because the circulation of capital begins in the sphere of circulation, prior to production. The initial M that is advanced in the sphere of circulation prior to production is the initial given in Marx's theory of how this given amount of money becomes more money at the end of the circulation of capital. I made these arguments concerning the importance of the circulation of capital as the analytical framework of Marx's theory in my (2000) paper, but Ravagnani did not respond to these points in his critique of my interpretation.
(2) The many passages in which Marx stated explicitly that the initial M in the circulation of capital is "presupposed to production" or "postulated" or "preposited" or "given." To take one important example, there is a long passage in the manuscript entitled "The Results of the Immediate Process of Production" (written in 1864-65 as a transition from volume 1 to volume 3, and was published for the first time in English in 1977 in the Vintage edition of volume 1 of Capital; Marx 1867: 976-77), which clearly states that the "point of departure" for Marx's theory of surplus-value is a "given sum of money." Marx's theory is about the "transformation of money into capital," i.e., the transformation of a given initial sum of money into the "given amount of money + additional money." The main task of Marx's theory is to explain how the initial given sum of money is transformed into more money. I quoted this important methodological passage in my 2000 paper, but Ravagnani did not comment on it or explain how he would interpret it.
(3) A number of passages that emphasize that the inputs to capitalist production (means of production and labor-power) are commodities, which means that they have already been bought and sold in the sphere of circulation prior to production, and thus that they already have prices, and these already existing prices are presupposed in Marx's theory of value and surplus-value and prices of production. These already existing prices of the means of production and labor-power are identically equal to the magnitudes of the constant capital and variable capital that have been advanced to purchase these inputs. Both the prices of the means of production and labor-power and the identical magnitudes of constant capital and variable capital advanced to purchase them are presupposed and become determining factors of the value and surplus-value and prices of production of the commodities produced. The clearest of these passages are from the little-known second draft of volume 1 of Capital in the Manuscript of 1861-63 (published for the first time in English in 1988, in volume 30 of the 50volume Marx-Engles Collected Works, published by International Publishers) and also in the "Results" manuscript mentioned above in point 2 .
(4) Marx's repeated emphasis in part 2 of volume 3 (and elsewhere) that the "cost price is the same" in the determination of both the value and the price of production of commodities. The cost price consists of constant capital and variable capital. Because the cost price is the same for both values and prices of production, so are its two components: constant capital and variable capital. Therefore, in Marx's theory, constant capital and variable capital are not supposed to be transformed from values to prices of production. There is only one cost price, not two.

The main passages that make this point are five key paragraphs in the middle of chapter 9 of volume 3 , including a recently discovered "missing paragraph," which is in Marx's Manuscript of 1864-65, but which is inexplicably missing from Engels's edited version of volume 3 with which we are familiar. ${ }^{9}$ These passages state repeatedly, including in clear unambiguous algebraic formulations, that: value $=$ cost price + surplus-value

$$
V=K+S
$$

and that: price of production $=$ cost price + profit

$$
\mathrm{P}=\mathrm{K}+\mathrm{p},
$$

The only difference between values and prices of production is the second component: surplus-value or profit. Since the cost price is the same for both values and prices of production, the cost price $(\mathrm{C}+\mathrm{V})$ does not have to be transformed, and it is not a "failure" that Marx did not make such an unnecessary transformation.

Ravagnani argued in his critique that these paragraphs are simply mistakes, a "flaw" in Marx's logic of determination of the prices of the inputs of constant capital and variable capital. However, there is substantial other textual evidence, summarized above and presented in my longer paper, which suggests that it is not a mistake to assume that the cost price is the same in the determination of both values and prices of production, but that this assumption is consistent with Marx's method of taking as given the inputs of money constant capital and money variable capital. If "M is presupposed" in the determination of both values and prices of production, as the money capital advanced to purchase means of production and labor-power in the first phase of the circulation of capital, then the cost price must be the same in the determination of both values and prices of production. These paragraphs are not a mistake, but indeed accurately express Marx's logical method, which is both a permissible and a coherent one.

On the other side of the ledger, Ravagnani's main textual evidence to support his interpretation-that Marx takes as given the physical quantities of means of subsistence and means of production, and derives the money variable capital and the money constant capital from these given physical quantities-are several passages from chapters 6 and 7 of volume 1 (pp.274, 275, 276, 300, and 301, discussed on pp. 90-91 of his article). These are important passages, and I agree that they could be interpreted as Ravagnani does (which is the standard interpretation of these passages). However, I argue in the longer version of this paper that these passages could also be interpreted differently, especially within the context of all the other textual evidence that supports my interpretation. (I also discuss in the longer paper several other miscellaneous passages cited by Ravagnani to support his interpretation.)

In the end, I acknowledge that the textual evidence related to the determination of constant capital and variable capital is ambiguous and not clearly decisive one way or the other, especially for variable capital. (I think that the textual evidence for constant capital is more clearly in my favor.) In some passages, Marx seems to say that the initial money capital is taken as given, and in other passages he seems to say that constant capital and

[^6]variable capital are derived from given physical quantities of means of production and means of subsistence.

Can these two apparently contradictory sets of textual evidence be reconciled? I think that they can. As explained in the longer version of this paper, the magnitudes of constant capital and variable capital, that are initially taken as given, and that are used to determine value, surplus-value and prices of production, are themselves eventually explained in two stages by assuming given physical quantities of means of production and means of subsistence. In volume 1, it is provisionally assumed that the given constant capital and variable capital are equal to the values of the given means of production and means of subsistence, which in turn are determined by the labor-times required to produce these quantities of goods. However, this assumption is not exactly true; it is only a first approximation. And the crucial point is that this preliminary assumption plays no role in the determination of value and surplus-value in volume 1 . The first component of the value of commodities is equal to the actual constant capital advanced to purchase means of production, which is equal to the price of production of the means of production, not the value of the means of production. And the surplus-value is determined by subtracting the actual variable capital advanced to purchase labor-power, which is equal to the price of production of the means of subsistence, not the value of the means of subsistence.

After equal rates of profit and prices of production have been explained in volume 3, Marx provides a more complete explanation of the given magnitudes of constant capital and variable capital: that these magnitudes are equal to the prices of production of the means of production and means of subsistence, not equal to their values (Marx 1981: 261, 265,309 ). The important point is that this more complete explanation of the given magnitudes of constant capital and variable capital does not change the magnitudes of constant capital and variable capital themselves. The magnitudes of constant capital and variable capital remain the same: the actual quantities of money capital advanced to purchase means of production and labor-power in the first phase of the circulation of capital, which are taken as given. What changes is the explanation of these given actual magnitudes, from a partial explanation to a more complete explanation.

Therefore, my interpretation of the determination of constant capital and variable capital is consistent with both sides of the textual evidence. I argue that Marx takes as given both the money constant capital and variable capital that are advanced to purchase means of production and labor-power, and also the physical quantities of means of production and means of subsistence, but for two different purposes. The given quantities of money constant capital and variable capital are used to determine the value and surplus-value and prices of production of commodities, and the given quantities of means of production and means of subsistence are used to provide a subsequent explanation (in two stages) of the given quantities of money constant capital and money variable capital.

On the other hand, Ravagnani's interpretation of the determination of constant capital and variable capital (i.e., the standard interpretation) is consistent with only one side of the textual evidence (the physical quantities side) and is contradicted by the other side of the textual evidence (the circulation of capital, "M is presupposed" side).

Furthermore, my interpretation of the determination of constant capital and variable capital is also consistent with Marx's fundamental premise of the prior determination of the total surplus-value in volume 1 (see brief discussion at the beginning of section 1 above and the references cited there), and is also consistent with Marx's method of determination
of the general rate of profit prior to prices of production (by the ratio of the total surplusvalue to the total capital invested). If constant capital and variable capital are taken as given, and remain unchanged in the transformation of values into prices of production, then the total surplus-value can be determined once and for all in volume 1 , and can be taken as given and remains unchanged in the theory of the distribution of surplus-value in volume 3. The general rate of profit can also be determined prior to prices of production. Thus my interpretation of the initial givens in Marx's theory makes it possible to understand his theory as a logically consistent, integrated whole.

On the other hand, Ravagnani's interpretation is not consistent with Marx's premise that the total surplus-value is determined prior to its distribution, and remains unchanged as a result of its distribution. If constant capital and variable capital were derived from given quantities of means of production and means of subsistence, then the magnitudes of constant capital and variable capital would change from volume 1 to volume 3 , and as a result the total surplus-value would also change, thereby contradicting Marx's fundamental premise. The general rate of profit would also change, and could not be determined prior to prices of production, again contradicting Marx's theory. Therefore, Ravagnani's interpretation of the initial givens in Marx's theory makes his theory logically contradictory and incomplete, and implies that Marx made fundamental logical errors in his theory of prices of production.

It is a widely accepted principle in the field of literary hermeneutics (the study and interpretation of the meaning of texts) that, when the textual evidence for different interpretations of a text is ambiguous and not clear-cut and decisive one way or the other, then the preferred interpretation is the one that makes the text as a whole more internally logically consistent. For example:

> The claim that literary hermeneutics has made from at least the time of Schleiermacher is that the adequacy of a given textual interpretation depends on the extent to which it can show the text's coherence as a unified whole. (Warnke 1993:21; emphasis added; see also Bleicher 1980: chap.1)

I suggest that this principle should be applied to these different interpretations of the initial givens in Marx's theory. The preferred interpretation is the one that makes Marx's theory more of a logically consistent whole, which I submit is the "monetary" interpretation presented here and elsewhere (and by others).

## 4. Conclusion

To those who would still insist that my interpretation is a fundamental misunderstanding of Marx's theory (i.e., that there is no way that one could reasonably interpret Marx's theory as I do), I would make the following radical suggestion for consensus: there are at least significant threads of this "monetary" interpretation of constant capital and variable capital throughout the various drafts of Capital (as discussed more fully in the longer version of this paper), even if Marx himself was not completely clear about it and may have thought that constant capital and variable capital are derived from given physical quantities, and change their magnitudes from volume 1 to volume 3 , as in the standard interpretation. If this
were the case, then I would suggest that we revise Marx's theory, or "reconstruct" it, along the lines of these significant threads in his drafts and the "monetary" interpretation presented here: that the magnitudes of constant capital and variable capital are initially presupposed in the theory of surplus-value and then are eventually explained in successive stages by the values and the prices of production of the presupposed quantities of means of production and means of subsistence. With this one revision, which is entirely reasonable and for which there is substantial textual evidence, Marx's theory would be transformed from a logically contradictory mess to a logically coherent whole.

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[^1]:    1. My "macro-monetary" interpretation is derived from the previous work of Mattick (1969), Yaffe (1976), and Carchedi (1984).
    2. Ravagnani has fairly summarized my interpretation of Marx's theory, except that he hardly mentions the circulation of money capital as the general analytical framework of Marx's theory, which I argue provides important clues about the initial givens in Marx's theory of value and surplus-value and prices of production.
[^2]:    3. It should be noted that, contrary to the currently dominant interpretation of Marx's theory, I argue that Marx's theory is not based on the method of simultaneous determination of the prices of the inputs and the outputs and the rate of profit. Instead, Marx's theory is based on a method of sequential determination. The inputs C and V are taken as given in order to determine the total surplus-value, and the total surplus-value in turn determines the general rate of profit, which in turn determines prices of production (along with the given inputs C and V in each industry).
[^3]:    4. The net output sector is not a fixed combination of commodities, but is instead whatever collection of commodities that are purchased with the net income (= wages + profit), which could be many different possible combinations, including means of production, depending on how the total surplus-value is divided into consumption and investment.
[^4]:    5. Note that the K sector includes only the replacement means of production, not the total means of production produced. If there is capital accumulation, then the additional means of production beyond replacement are produced in the net output $(\mathrm{Z})$ sector.
    6. See footnote 4.
[^5]:    7. See the longer version of this paper for a further discussion of Marx's theory of value.
    8. Others who have presented similar interpretations of the constant capital component of the value of commodities include Carchedi, Yaffe, and Wolff, et al. 1984.
[^6]:    9. Marx's original manuscript has recently been published in full in German for the first time, but unfortunately the International Publishers's 50-volume collection does not include an English translation of this key manuscript. This "missing paragraph" was recently discovered by Alejandro Ramos (1998).
