

ABSTRACT

Materialized Composition of Capital and its Stability in the United States: Implications for Studying Capital Accumulation

by Paul Zarembka, State University of New York at Buffalo

Marx's position on the composition of capital was an evolving one, for which the French edition of *Capital* was the one last explicated and the version that became incorporated into later German editions and the English edition, edited by Engels. This French version was placed, for the first time, at the beginning of the chapter on "The General Law of Capitalist Accumulation", giving it heightened importance. It distinguished between the technical, value and organic compositions. The value composition of capital has been read by many as constant capital C divided by variable capital v . This is fair enough, although constant capital can be understood to be either the flow of constant capital used up -- the consumption of constant capital -- or the stock of constant capital with which workers are working, either one of which would be measured in terms of labor hours. Marx is unclear between the two possibilities, although a *mass* of means of production does suggest a stock concept. Engels in editing of *Volume 3* for publication explicitly indicates that the stock of constant capital was meant, not the flow.

In this paper we focus upon the problem of using variable capital v as the denominator in the value, or organic, composition of capital, C/v . The problem is that v can change without any change in the technical composition in circumstances in which workers can receive more or less while producing under the same technology. Thus, C/v can change without any change in the technical composition. A substantial rise in C/v can be separated between the technical factor and the distributional factor by using what Shaikh (1987) has called the *materialized composition of capital*, a concept not new but is particularly well laid out in the encyclopedia contribution. Basically, the idea is a simple adjustment in the ratio referred to by analyzing $C/(v+s)$ rather than C/v . In other words, we have

$$C/v = (1 + s/v) \cdot C/(v+s)$$

Commentary by Shaikh on $C/(v+s)$ indicates that he expects the materialized composition to be rising. As it turns out, this presumption is not supported by the evidence.

Empirical work that we report indicates that the materialized composition of capital $C/(v+s)$ has been approximately *stable* around two in the United States since 1956. Indeed, the conclusion is that the *entire movement of the value composition of capital C/v since 1956 is due to a rise in the rate of surplus value, the distributional concept*. Therefore, it is incorrect to conclude that “the rising trend of the value composition of capital signifies the capital-bias technological change”. After 1956, C/v rises only due to s/v rising.

Moving to discussions of the accumulation of capital, the implication of our findings is that the employed labor hours rises at a similar rate as the level of constant capital and reinforces a concern of such a political economist as Rosa Luxemburg as to the outlook for capitalism as the world's is increasingly wage labor.