

Marx and non-equilibrium economics. pp. 303 + xx.

Edited by Alan Freeman and Guglielmo Carchedi

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This volume presents 11 articles centered on Marx's theory of value, but extending to a broader range of issues, including the critique of neoclassical economics, disequilibrium methodology in economics, the theory of the falling rate of profit, and Marx's monetary theory.

The core of the book is a series of papers arguing for a critical reinterpretation of Marx's theory of value as a "single system." In this approach money is the form of value and labor its substance. Money prices are a form of value. Constant and variable capital are the sums of money laid out by capitalist firms to initiate production, and surplus value the total of gross profits (of which interest and rent form subsidiary parts) realized. These money value flows can be translated into labor time through a "monetary expression of labor" coefficient which represents the amount of money value equivalent to a unit of labor time in each period.

From this single-system perspective there is no need to calculate a separate accounting system of "labor values", that is, coefficients expressing the amount of labor time embodied in individual commodities, as in the "dual-system" interpretation of Marx's theory of value that stems from Bortkiewicz (1952) and was developed by Seton (1957), Sweezy (1970), Morishima (1973), Okishio (1972), and Roemer (1981), and on which Steedman based his devastating criticism (1977) of the "labor theory of value." The dual system analysis seeks theorems linking properties of the conceptually separate price and labor value vectors (such as the "Fundamental Theorem" of Morishima that profits in the price accounting scheme are positive if and only if surplus value in the labor value accounting scheme is positive.) The weakness of these mathematical links between the "labor value" accounts and "price of production" accounts is the foundation of the critical rejection of this interpretation of the labor theory of value on essentially logical grounds by Samuelson (1971), Steedman and their followers. The single system approach, in contrast, immediately identifies the observable price based categories with Marx's, so that surplus value is aggregate gross profit divided by the monetary expression of labor.

The single-system interpretation completely endorses Marx's treatment of the "transformation problem." This interpretation (clearly explicated by Ted McGlone and Andrew Kliman in essay 2) takes the historical path of market prices (which may or may not be profit-rate equalizing prices of production) as given. Outlays for means of production, that is, Marx's constant capital, are therefore known as historical facts, as are outlays for the purchase of labor-power, Marx's variable capital, for each firm and sector. The money exchange ratios at which each firm's

profits would be proportional to its variable capital outlays, are, from the single-system perspective, "values". Market prices, however, may deviate from these values for any one of a number of reasons, including the tendency for competition to equalize rates of profit, thereby redistributing the aggregate surplus value over firms and sectors. Whatever prices rule in a given period determine the values of constant capital for the next period.

This interpretation of Marx's theory raises several questions. Is the single-system interpretation a correct reading of Marx's own writing? Is it a coherent labor theory of value? Is it an operational theory with testable consequences, or at least a framework of analysis which suggests testable hypotheses? Some of these questions receive careful treatment in these essays, but some are left largely unexplored or with unpersuasive answers.

I think there is a quite strong case that Marx often, perhaps most often, thought of value theory in terms of the single system interpretation (see for example, Foley, 1986.) In many passages of *Capital* Marx uses a monetary expression of labor to translate between monetary quantities and labor time, and the presentation of his theory of value in the first three chapters of Volume I of *Capital* emphasizes the Hegelian unity of the labor and monetary aspects of value. The essays by Alejandro Ramos-Martinez and Adolfo Rodriguez-Herrera in this volume constitute an impressive review of the evidence in favor of this reading of Marx. The single system interpretation reconciles a large number of otherwise puzzling apparent contradictions in Marx's writings on labor, value and price. Its persuasiveness lies in its ability to connect the very abstract conceptual passages in which Marx discusses the nature and forms of value with the numerical examples he uses to discuss more concrete problems such as the transformation problem.

Even if Marx often thought and wrote in this mode, it is possible that he also on occasion adopted a stance closer to or consistent with the dual-system interpretation. Marx's writings on economics are voluminous, span almost his whole active intellectual career during which he surely changed his mind on many issues, and exist in a widely disparate variety of states of revision. As a result, it is very hard to rule out the possibility of inconsistencies in his treatment of these fundamental doctrinal issues, or, to put the matter more positively, that he propounded more than one theory of value. The main weakness of the doctrinal papers in the volume is their uniform adherence to the idea of a single, all-embracing and completely consistent reading of Marx.

Does the single-system interpretation amount to a coherent labor theory of value, and thereby escape the criticisms leveled at the dual-system interpretation? Once we interpret Marx's constant capital, variable capital, and surplus value as identical (at least at the aggregate level) to the corresponding money flows observed in a capitalist economy, much of the theory of value turns into an exploration of accounting identities. (As Freeman remarks (p. 238), "No special knowledge of value theory is needed, just solid bookkeeping.") But accounting identities are the common ground of all empirical economics. Is there

any explanatory substance left in the Marx's theory of value on this reading, or is it simply a rehearsal of the subtleties of accounting?

It seems to me that the answer to this question depends crucially on the theory and definition of the monetary expression of labor coefficient, since it bears the whole weight of the connection between the phenomenal realm of money values and the substantial realm of labor expended in production in this approach. The essays cited above by Ramos-Martinez and Rodriguez-Herrera do discuss the conceptual relations between the concepts of labor, value, price and money in a thorough and thoughtful manner. But they do not venture an opinion as to the appropriate operational procedure for calculating the monetary expression of labor from real data. Unfortunately, none of the essays in this volume address the issue of the definition monetary expression of labor directly, and there are signs that various of the authors have quite inconsistent views on it, some of which lead to potentially confusing claims.

In the early 1980s Gerard Dumenil (1980, 1983) and I (1982) independently put forward an interpretation of Marx's theory of value (called variously and undescriptively in this book and the literature as a whole the "New Solution", the "New Approach" and the "New Interpretation") which coincides in many respects with the single-system interpretation. We also insisted that Marx's theory of value was a monetary theory of value, that his concern was to establish the dialectical links between the expenditure of labor and the realization of money value through the sale of output in a commodity producing system, and that the core claim of Marx's treatment of the transformation problem, the identity of gross profit and unpaid labor time, could be given a rational and rigorous defense. Alfredo Saad-Filho's essay in this volume makes a temperate, thoughtful and balanced appraisal of the strengths and weaknesses of the New Interpretation. But neither his essay nor the others in this book directly confront the question of the relation of the single-system approach to the New Interpretation. This omission is particularly unfortunate in the area of the monetary expression of labor.

The New Interpretation defines the monetary expression of labor (Rodriguez-Herrera argues persuasively that the phrase "monetary expression of labor" is more appropriate scientifically than the more commonly used "monetary expression of value", and I will adopt his usage here) in any commodity producing economy in any time period as the ratio of the money value of the net product at market prices (which I will refer to as the "accounting value added", and is the same as the net domestic product in national income accounting terms) to the living labor time expended in production. This definition is operational, and establishes the labor theory of value as a framework in which testable hypotheses about capitalist economies can be framed. When this definition is combined with assumptions about the evolution of the monetary expression of labor, it leads to complete predictive and explanatory models of price formation in capitalist economies.

I was left unclear after reading this book which, if any, of the authors accept this definition of the monetary expression of labor. Any other definition of the

monetary expression of labor will lead, as a matter of mathematical necessity, to a quantitative discrepancy between the expenditure of living labor and accounting value added, and as a consequence, to the failure of the quantitative equivalence of unpaid labor time and gross profit. Since most of the authors in the volume appear to hold to the classical Marxist view that the origin of gross profit (or surplus value) is unpaid labor time, I assumed that they would have adopted the New Interpretation as part of the single-system interpretation. But in several specific instances, it is apparent that the authors adopt other concepts of the monetary expression of labor. In essay 7, for example, Guglielmo Carchedi and Werner de Haan, after an extensive tutorial on the relation of "individual" and "social" values and their transformation through the purchase and sale of commodities in the circuit of capital, write equations (pp. 136-137) that seem to confuse the monetary expression of labor with various measures of the velocity of money. In essay 10 Andrew Kliman works out an example of price evolution under the assumption of a constant monetary expression of labor that are inconsistent with the New Interpretation definition of the monetary expression of labor. (This fact throws some doubt on Kliman's claim that his examples constitute a "refutation" of the Okishio theorem, since re-working his examples with the New Interpretation definition of the monetary expression of labor yields qualitatively different price and profit-rate paths.) It will be difficult to realize all the potential gains of the single-system interpretation of Marx's theory of value without a stable, well-founded and operational definition of monetary expression of labor.

Alan Freeman's essays 1 and 11 (together with Carchedi's essay 8) represent an extended critique of equilibrium method in Marxian and, indeed, all economics. Freeman writes a high rhetorical style that achieves some striking effects ("If the price of scrap rises sixfold, dead machines wake to money's kiss" p. 254.) My favorite of his sentences, however, is a classic for all of economics (p. 227): "This chapter has two audiences: non-mathematical readers, and those with a background in linear production models." Freeman makes a valiant attempt to bridge these differences in readers' backgrounds, but some "non-mathematical" readers may find his essay heavy going.

Freeman, like many contemporary economic theorists both heterodox and orthodox, is understandably impatient with the limitations assumptions of equilibrium and stationarity impose on the realism and richness of economic analysis. He proposes to eliminate these limitations by moving to a rigorously dynamic formulation of economic theory, in which all relevant quantities are time-dated, and only the past is allowed to influence the future. Freeman achieves some success in this project by limiting himself to the development and manipulation of accounting identities, which exhibit the time-consistency he seeks (although he might have greater pedagogical impact if he were to discard the idiosyncratic system of notation he adopts in favor of more conventional accounting symbols and categories.) Accounting identities, however, cannot by themselves constitute a predictive or explanatory theory, so that Freeman's discussion is inevitably only the first step toward the development of the type of theory he calls for. When the time comes to add substantive hypotheses to the accounting identities, furthermore, I suspect that stationarity and equilibrium will

once again insinuate themselves into the discourse, since they constitute the simplest cases in which the economic relevance and coherence of specific hypotheses can be examined before they are employed in more general settings.

Limitations of space prevent me from making detailed comments on the other papers in the volume. Michelle Naples' decision to discuss a wide spectrum of disparate issues in the compass of her relatively brief essay 5 prevents her from making a persuasive case for several novel and controversial conclusions (for example, "Gold cannot be Marx's unit of account", p. 106.) Paolo Giussani's reconstruction of supply and demand theory in essay 9 led to graphs that were to me indistinguishable from the constructions of typical mainstream textbooks.

The contributions of this volume to the reading of Marx's theory of value are solid and considerable. The attempts of the authors to build alternative examples, models and methods on the single-system foundation need to be regarded as tentative and subject to critique and revision.

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