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## **BOOK REVIEW**

## Capital in Disequilibrium: The Role of Capital in a Changing World ( $2^{ND}$ ed.)

Peter Lewin

Auburn, Alabama: Ludwig von Mises Institute, 2011, 277 pp.

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Peter Lewin's *Capital in Disequilibrium* is an award-winning, extensive survey of capital theory, which touches on and summarizes an array of issues and phenomena. It fearlessly dives into the depths of the vast and shifting literatures available on each of the topics. Lewin, a former student of renowned Austrian capital theorist Ludwig Lachmann, guides the reader through both the history and parallel universes of capital theory in an attempt to develop a comprehensive guide to and modern framework for the study of capital theory.

The book's eleven theory chapters are divided into three parts. Part one provides a background and discusses fundamental

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theoretical concepts related to the analysis. At the core is the concept of equilibrium and how it, interpreted as complete plan coordination, applies to individuals' actions: it implies that all "plan[s] can be successfully executed" and consequently that "[m]eans are exactly matched to ends" (p. 19). In the real market process production takes time, and therefore there is substantial uncertainty or ignorance and consequently there can be no full plan coordination. Rather, Lewin argues that we "are never in equilibrium" (p. 44) and even though we see a tendency toward coherence, which may result in convergence of expectations and even fulfillment of plans, "the market process in general is not equilibrating" (p. 48).

Part two discusses the meaning and implications of capital, and how it relates to interest and profit. Lewin provides a historical and theoretical overview of our scientific understanding of these phenomena, and stresses the importance of the flow of time in market analysis. Indeed, Böhm-Bawerk's great contribution to capital theory, Lewin says, is basically the addition of "a new dimension, a time dimension, to Ricardo's theory of distribution" (p. 75). We learn that "capital must be thought of in terms of intertemporal plans" (p. 105) and since "[t]he passage of time has implications for knowledge and expectations" (p. 91) the market is forever trapped in a kaleidic state of fluctuating disequilibrium.

Part three applies this view of capital on the real market process and the institutional environment within which individuals act. The Lachmannian theory of capital is introduced, in which heterogeneous assets with "multiple specificities" are combined in ever-changing capital structures formed to attain specific ends. Lewin especially stresses the role and function of the business firm, and uses the inherent ignorance in a market with changing capital structures to draft a capital-based theory of the firm and human resources. (More on this below.)

There can be no doubt that Lewin is very well versed in the topic. Also, the Lachmannian disequilibrium perspective is both informative and refreshing, especially in the discussion in the second part of the book on historical capital theories and mainstream interpretations of the theory in Böhm-Bawerk's *Positive Theory of Capital* (1889). Less obvious is the value added by using mathematical notation in attempting to formalize Austrian capital

theory, though this does offer some illuminating points of reference when comparing with mainstream. And such notation may be necessary in order to speak to non-Austrian readers. Yet it seems likely those readers are lost already in the first theory chapter in the book, "What Does Equilibrium Mean?", in which Lewin dives into a discussion on Hayekian knowledge, plan coordination, and equilibrium tendencies.

Neoclassical readers are likely to find it difficult to fully comprehend Lewin's radical subjectivist, constant disequilibrium, market process perspective. But the book nevertheless provides interesting insights and raises important questions, many of which should be understandable even without necessarily accepting the totality of this Austrian perspective. Overall, the book has much to offer, and Austrians too will find interesting tidbits and enlightening theoretical parallels.

This being said, Lewin sometimes seems to struggle to bring all the thoughts together into a complete and coherent whole with explanatory power to further our understanding of the economic process. The underlying argument appears somewhat frail or shallow at times, and to some degree, the author fails to follow through on several of the important points he makes. The reasoning offered to tackle economic problems often seems to come to a halt before the explanatory power of the framework has been sufficiently exploited, and the reader is left wondering if there is not more to the story. As a consequence, one has to wonder whether knowledge is suitable as the universally applied *explanans* to all phenomena under investigation, or if there are possible alternative explanations—and whether some of those could offer more detailed explanations or greater understanding in causalrealist analysis. There are several examples of these ostensible shortcomings throughout the book, and they all seem to arise from the treatment of knowledge as a *lapis philosophorum* of economics.

Also, readers already with an Austrian bent may suffer a foreboding feeling while perusing the book due to the relative absence of Ludwig von Mises and Murray Rothbard in the book's primary discussion. A possible reason for this is the already mentioned adopted knowledge-based framework for analysis, within which the contributions of Mises and Rothbard may not squarely fit. Lewin relies heavily on Hayek's theorizing on the role

of knowledge in the economy and uses this concept as the lens through which capital and the market process are studied. The framework is almost exclusively formulated based on the tension between knowledge and ignorance, and how this bounded rationality of economic actors fundamentally shapes market structure through individuals putting their plans into action. While this perspective may indeed be advantageous for analyzing certain problems, Lewin never substantiates this choice and the reader remains uninformed of why this is a suitable (or perhaps the best) approach—and what are the consequences of choosing it. In this sense, the lack of references to more mundane causal-realist economic theorizing may appear wanting.

In the same vein, the knowledge framework Lewin utilizes seems to rely on the entrepreneur as primarily "an all-purpose arbitrageur" or information broker. The entrepreneur acts on perceived price (or knowledge) discrepancies but there is no saying if what appears like an opportunity is real, since the market is not generally equilibrating. However, entrepreneurship may eradicate price differences between markets and entrepreneurs may form firms to exploit profit opportunities through establishing internal capabilities using capital; indeed, organizational structure can be thought of as a result of entrepreneurial innovation.

The book offers no elaborate discussion on entrepreneurship the word is not listed in the book's index—but it is obvious that Lewin's entrepreneur has more in common with Kirzner (1973) than with Mises (1949). While the former is an arbitrageur, the latter is a forward-looking speculator, acting under the uncertainty of expected future prices as bases for profit calculation in an open-ended market process. Entrepreneurial bidding for resources intended to be used in future production drives the social appraisement process of the market toward ex post price coordination. Such market action certainly conveys knowledge of the real supply and demand curves at a specific point in time, but does not produce or depend on it. In contrast, plan coordination relies on these prices as inputs and for that reason sees the market as a means to disseminate knowledge of the particular circumstances of time and place through those very prices. The resulting argument seems unsatisfactory: knowledge produces prices, the knowledge of which is the basis for plan coordination, yet time and change makes the world "non-expectable"

through essentially undermining the value of this knowledge. So what can we expect to learn from this?

Focusing on knowledge and plan coordination, Lewin cannot say anything conclusive about what characterizes the market process. Instead, it is "composed of equilibrating, disequilibrating and non-equilibrating sub processes," and consequently "the arrival of new and better products and better methods of production is the result of unpredictable, disequilibrating and non-equilibrating processes." Furthermore, "[t]here is no tendency for expectations to cohere" in the market, and therefore production processes are "the results of a multitude of *unintentional* experimentations" (pp. 44–45; emphasis added). In other words, attempting to explain the market process in terms of knowledge produces a rather arbitrary "kaleidic" stew of unpredictable outcomes resulting from the actions of ignorant actors.

The issue of price vs. plan coordination has undoubtedly been heavily debated among Austrians, and this is not the place to review this debate. It is sufficient to note that Lewin clearly comes down on the side of plan coordination, and that this at times seems to create problems that it does not allow him to solve. Moreover, it is not obvious why a general concept such as knowledge should always be deemed appropriate in solving specific economic puzzles. In many cases, the solutions Lewin presents appear to have more to offer were the logic to be taken a step further. Instead of doing so, the reader is left without further guidance yet reminded that a solution is suggested in stating that it is primarily a knowledge problem.

A particularly telling example of this is the author's formulation of a capital-based theory of the business firm. While it is at times difficult to separate Lewin's argument from his discussion of what others have said, he clearly argues that "[o]rganization matters for production" (p. 162) and consequently that "organizational structure is a crucial aspect of the capital structure in general" (p. 169). As all production processes are both joint ventures and take time, production using complementary heterogeneous resources is inherently uncertain. It also entails that "the extent or value of the contribution of any [individual resource] is wholly or partially indeterminate (difficult or impossible to measure)" (p. 2). Integrating production processes in a firm is thus primarily a "response

to productive processes which have an irreducible degree of indeterminateness (and arbitrariness)" (p. 158); the organizational structure of a firm can be seen as an entrepreneurial innovation designed to solve these problems.

Lewin concludes the analysis of the purpose and nature of the business firm by quoting Loasby saying that it is "a device for the coordination and use of particular kinds of knowledge, including the coordination of knowledge generation, by the imposition of an interpretive framework" (1991, p. 59). In Lewin's words, "[k]nowledge is a key concept in analyzing all productive activity and its organization" (p. 175).

It may very well be the case that knowledge is an important aspect, but it seems there is a whole world of problems in practically and economically applying and using this knowledge in a production process within the firm. That the firm is stated to be designed to solve the problems offers but little guidance. Furthermore, the firm does not exist in a vacuum, but exists in a market structure that is equally dependent on using complementary resources in an efficient manner. Lewin indirectly recognizes this fact through stating that the firm is an aspect of the general capital structure. But how does the interaction between firm and market affect the overall capital structure? And how are firms and markets different in terms of capital? What is the effect on resource allocation and prices? What is the role of the entrepreneur and management within the firm? How do transactions within the firm compare with transactions performed in the market? On what basis do business leaders decide whether to integrate one more (or one less) transaction? How do we explain (what are the causes of) outsourcing and disintegration? Questions such as these are left for the reader to figure out on their own; we know only that the firm is "designed" to "solve" problems of knowledge. This may or may not be very helpful in our analysis of the market, but one gets the feeling that there is much more to be said.

Nevertheless, the Austrian view of capital as heterogeneous and complementary—as a *structure*—offers an important and useful basis from which puzzles in the economics of organizations can be approached (see e.g., Foss and Klein, 2012). While this view has to some extent been adopted in mainstream research, mainly in strategic management and entrepreneurship, there is undoubtedly

much value in explicating the intricacies of such a framework. But it is not obvious in what sense Lewin's particular approach provides meaningful insights for solving the central questions still unanswered in management and the economics of organizations. It is likely that the framework developed in this book needs both elaboration and explication to be adoptable in applied research.

Despite these sometimes puzzling shortcomings, *Capital in Disequilibrium* is a work of great scholarship. Lewin masterfully summarizes theories and perspectives to provide an extensive survey of the literature related to capital. It is not a comprehensive survey, which is obvious from the lack of references to, e.g., Austrian production theory (Rothbard, von Strigl, and others), but an overview of capital theories on which Lewin builds his own scholarship. Therefore, it is also not limited to Austrian scholars or ideas, but includes several discussions on mainstream thinking that is relevant for his thesis.

While the text at times appears to be a collection of literature summaries with a common theme, Lewin also offers several very interesting reformulations of theories and reveals commonalities that may not be obvious to most readers. The reformulation of parts of Austrian capital theory in formalized notation in order to compare and contrast—as well as show linkage—with mainstream thought offers great insights into how the ideas are related.

As capital theory is core to economic analysis yet a severely understudied topic—if not ignored or forgotten—this book is a welcome and desperately needed contribution to the literature. It is worth reading and should inspire many scholars, young and old, to pursue and ponder questions on this important topic.

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