## Capital in Economic Theory

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Capital in Economic Theory: Neoclassical, Cambridge and Chaos, by Syed Ahmad, Edward Elgar, 1991; ISBN: 1 85278 201 3, pp. 488.

For those who remember the Cambridge debate of the 1960s a book dealing with capital theory would seem to be fertile ground for raking over some of the old controversies from a more modern perspective. However, those interested in the implications of the Cambridge debate will be disappointed by this book. Controversy is not the author's forter and the Cambridge debates receive only a rather bland survey in the appendix to section III of the book. These comments should not, however, be interpreted as a major criticism of this work as the author makes it clear in the introduction that he intends to provide a comprehensive and balanced survey of the technical aspects of capital theory - as opposed to some of the more polemical surveys of the 1960s and 70s.

To this end the author identifies four approaches to capital theory; simple neoclassical, Austrian (Hicksian), Cambridge, and disaggregated intertemporal (Walrasian). The core of the book, parts I to III, consists of a systematic presentation of the theoretical properties and historical antecedents of each approach. Part IV deals with the Cambridge theory of income distribution and non-substitution theorems while parts VI and VII are less comprehensive and deal with more recent issues such as real business cycle theory, chaos, Sraffa on the self-replicating economy and the aggregation problem.

Unlike the capital debate of the 1960s and 70s the emphasis in this book is on the technical issues involved rather than the polemics or wider implications of the Cambridge critique. In this endeavour the author does a very good job of isolating the properties of each approach and presenting the ideas in a systematic fashion. At times the presentation is a little pedantic but that no doubt reflects the fact that the book is based on a series of lectures given at McMaster University, Certainly, advanced undergraduates and graduate students interested in capital theory should find the book an invaluable starting point. The treatment is comprehensive and methodical. This observation applies particularly to parts I to III which deal with the simple neoclassical (aggregate production function), Austrian (Hicksian) and Cambridge approaches to capital theory. Part III, which deals with the technical issues raised by so-called Cambridge controversy is well done. The author leads the reader step by step through the maze of technical detail surrounding the puzzles of capital reversal (within and between techniques), switching and reswitching. The presentation is clear and concise and provides an invaluable introduction to the subject as well as a useful reference work for anyone interested in capital theory. Nevertheless, more attention to the implications of the Cambridge debate would, I feel, have improved the book.

Part V deals with disaggregated intertemporal analysis and succeeds in providing useful insights into the properties of intertemporal Walrasian models and von Neumann's growth model. Although the author does not draw these conclusions his discussion of the treatment of time as a 'characteristic' of goods in intertemporal Walrasian models provides additional confirmation that the concepts of money and interest are inessential additions to the Walrasian system.

Part VI changes the focus and presents some recent developments in the form of real business cycle theory and chaos. The treatment of both of these topics is relatively superficial and more comprehensive introductions are available in the literature. Furthermore, this section is not well integrated into the rest of the text and the author passes up the opportunity to assess the implications of the capital debate for real business cycle theory. If the capital debate has any implications for modern theoretical developments it is surely the real business cycle theory that deserves attention. This lost opportunity to confront real business cycle theory is an example of how the author's intention to avoid controversy has reduced the impact of the book.

Part VII considers two additional topics; Sraffa on the self-replicating economy and the aggregation problem. Both of these sections deal with issues that have been the subject of much controversy and debate and in the main the important issues are covered. However, a notable omission in discussions of the aggregation problem and the interpretation of empirical estimates of aggregate production functions is the work by Shaikh (1980). But perhaps Shaikh is too controversial for the author's taste?

Part VIII is titled Epilogue' and consists of only one chapter which provides an overview and assessment of the issues raised in the rest of the book. Much of this is useful but the chapter rather summed up my sense of frustration with the author's emphasis on technical issues. He acknowledges that the Cambridge controversy of the 1960s was one of the main motivations for writing the book and yet he never addresses the implications of that debate when numerous opportunities arise. I was left wondering whether the stress on technical issues had distracted his attention from the more fundamental theoretical issues posed by the capital debates. How else are we to explain the statement, which passes without comment, that the supply of capital can be interpreted as the supply of saving?

Despite these somewhat negative comments on the author's conceptual perspective I would not hesitate to recommend this book as a useful introduction to the technical issues raised by the capital debates that have raged over the ages.

## Reference

Anwar Shaikh (1980) "The Laws of Production and Laws of Algebra: Humbug II" in E.J. Nell (ed.) Growth, Profits and Property, Cambridge: Cambridge University Press.

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