EQUILIBRIUM BUSINESS CYCLE THEORY IN HISTORICAL PERSPECTIVE+

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Two new dissertations in the history and methodology of macroeconomics have recently become available to subscribers of the UMI Dissertation Information Service. Both are concerned with the analysis of business cycles during the interwar period, a period of increasing interest to historians of thought, and the interpretation of that period by equilibrium business cycle theorists (also known as the New Classical macroeconomists or rational expectationists). The two pieces of work were completed under the supervision of Professors Neil De Marchi, Craufurd Goodwin and E. Roy Weintraub at Duke University.

Motivating Kyun Kim's study is the quest to uncover the historical influences underlying the development of contemporary equilibrium business cycle theory (EBCT). Kim seeks out the theoretical and methodological positions of the pioneers of BCT, outlining their views and practice concerning the role of equilibrium value theory in studying business cycles. Moreover, the origins of the EBCT's econometric strategy, which is fundamental to the EBCT research strategy, are sought.

Kim takes a 'retrospective' approach to the analysis of the historical development of BCT; that is, after investigating the substance and method of EBCT, the previous works on BCT are examined using the modern theory as the standard of reference. This approach has the advantage of highlighting common themes whilst also identifying discontinuities and hence isolating

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\+ This article reviews two 1986 Ph.D dissertations submitted in the Department of Economics, Duke University, U.S.A: Kyun Kim, Equilibrium Business Cycle Theory in Historical Perspective, and Janet A. Seiz, Business Cycle Theory and the 'Keynesian Revolution': A Reexamination. The former has now been published by Cambridge University Press. Both dissertations are available from the University Microfilms International Dissertation Information Service, 300 N.Zeeb Road, Ann Arbor, Michigan 48106.

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genuine innovations of contemporary theory. Kim steers a very judicious course through the seminal works in BCT and sheds much light on modern work, raising questions about the content and direction of modern research. Kim's study reveals the best that the retrospective approach to historical inquiry has to offer, indicating the historical nature of current work on BCT and it is through such an approach that historians of thought can provide perspective and constructively contribute to current theoretical debates.

Kim's dissertation may be divided into 4 main sections. The first (chapter 1) provides the introduction where the central elements of the EBCT research strategy are presented. Exemplified in the work of Lucas and Sargent, EBCT is based on four fundamental tenets: (i) optimisation within a general equilibrium context, (ii) continuous market clearing, (iii) natural rate of unemployment/neutrality of money hypothesis, and (iv) incomplete information.

The first two tenets are most distinctive. Kim (p.10) makes the important distinction between tenets (i) and (ii), recognising that market clearing implies an optimisation foundation, but not the converse. However, Kim only draws out this distinction in a footnote, rather than providing a fuller discussion in the text as is warranted. The continuous market clearing tenet, which has attracted the most controversy, is crucial to the econometric modelling practices of its followers and hence to their radically passive policy conclusions. However, given this criticism on points of emphasis, Kim provides a balanced and cogent summary of (pre 1985) EBCT.

Chapter 2 then examines the 'Classical Tradition and Business Cycle Theory'. This section, which surveys previous works, is organised into two chronological components:

(i) Nineteenth century theories of crisis, such as the underconsumptionists. Theories of this era characteristically treated crises as unique events caused by forces extraneous to the economic system.

(ii) Interwar business cycle theories. As Kim (pp.46-8) acknowledges, it was during this era that business cycle theory as such took form, with the formal recognition by theorists of the interconnectedness of the different phases of the 'cycle', and their recurrent nature. Furthermore, endogenous explanations of the cyclical fluctuations were sought. The interwar years were a period of rich discourse in business cycle research, producing discussions of fundamental issues which are currently at the forefront of debate. The work of this period is the focus of Seiz (1986) study, and is discussed more fully below.

Chapter 3, entitled the 'Econometric Approach to Business Cycles', traces the origin of the econometric strategy of EBCT. It is in this section that the major contribution of Kim's study lies. Here Kim confronts the econometric tradition in BCT, presenting a very clear and insightful survey and analysis. It is found that the EBCT approach is a product of the Cowles Commission econometric method. The Cowles Commission, led by Koopmans, participated in the interwar BCT debates. Emphasising the role of *a priori* theory, it typically saw 'econometrics' as providing the bridge between theory and 'the facts'. Counterposed to the Cowles Commission was the National Bureau of Economic Research, led by Mitchell, that advocated an empiricist, a-theoretical approach to cycle research. The Cowles Commission prevailed in that interwar debate and played a pivotal role in reorienting the study of the aggregate economy toward macroeconometrics.

The Cowles Commission initiated the integration of econometrics into mainstream economic discourse. As cogently recorded by Kim, starting with the work of Tinbergen in the late 1930's, the Cowles Commission sought to incorporate developments in statistical theory, such as Haavelmo's probability approach, with developments in empirical business cycle analysis. From here the econometric approach to business cycles evolved, with estimation of sets of simultaneous equations representing the structure of the economy.

Illustrating that the history of macroeconomics is one of recurring controversies, the Cowles Commission confronted the same issues that current EBCT researchers do in applying their econometric strategy. Questions were raised about the ability of economists to identify the system of 'autonomous' (i.e. stable) structural equations, such that changes in the variables in one equation are independent of the coefficients of another structural equation. As Kim (p.125) states, this problem, equivalent to the Lucas critique, invariably arises at the interface of theory and statistical inference. The Cowles Commission attempted to resolve this problem by relying on *a priori* theory complemented by 'observed behaviour and institutional rules' to derive the structural equations. EBCT, however, adopted the more extreme position of strictly adhering to *a priori* theory, based on the tenets of individual optimisation and clearing markets.

The next section of the thesis brings together the works surveyed in the preceding chapters. EBCT is compared and contrasted with Hayek's cycle theories. Significant similarities exist, such as the desire to establish cycles upon equilibrium theoretic foundations, plus the emphasis on noisy price signals and mistaken expectations in accounting for the business cycle. However, fundamental differences prevail, such as Hayek acknowledging market imperfections that result in markets failing to instantaneously clear, as well as the methodological differences due to Hayek's Austrian emphasis on the processes of achieving market coordination, rather than the Walrasian emphasis on final equilibrium outcomes.

Then EBCT treatment of 'expectations and equilibrium' and their econometric strategy is reexamined. Again, it is found the EBCT represents an extreme response to those earlier theoretical and methodological debates, rigidly relying on *a priori* theory and mathematically tractable equilibrium constructs. Overall, it is apparent that the contribution and success of EBCT lies with increasing the formalism and rigour of cycle theory.

Complementing the work of Kim is that of Janet Seiz. Both studies are bold in their scope and are mostly successful, making useful contributions to the understanding of past and present BCT. But, although dealing with similar subject matter, they adopt different approaches, Seiz being the more traditional.

Jane Seiz's study begins by noting that as a result of the New Classical assault on contemporary Keynesian macroeconomics a growing number of historians are asking the question: what was it that the 'Keynesian revolution' left behind? There is a considerable resurgence of interest in interwar business cycle theories. Partly responsible for the renewed interest in pre-Keynesian macroeconomics are Lucas the Sargent, who describe the Keynesian revolution as an unfortunate impediment in the development of macroeconomics and seek to return macroeconomics to the correct path as pursued by the interwar cycle theorists. The potted history presented by the EBC theorists provides the springboard from which Seiz sets out to uncover the essence of interwar cycle theory, and then to compare it to the work of Keynes.

Seiz's dissertation is organised into six chapters. The first provides the motivation for the study, detailing the history of macro as understood and used by Lucas and Sargent in contemporary debates. In the second a survey of interwar business cycle theory is undertaken, in which the texts of five leading theorists - W.C. Mitchell, I. Fisher, J. Schumpeter, D.H. Robertson and F. Hayek - are examined. In this section textual exegesis is used to outline the theoretical stance of each scholar. Although Seiz gives a useful and coherent treatment of the work of each writer, a monumental task is then called for in order to give a balanced and sympathetic treatment of the entire work of each of the five scholars.

The third chapter entitled 'Equilibrium and Expectations' examines both concepts in reference to the substantive and methodological writing of the five theorists. Seiz vividly shows the interwar years as a period of theoretical as well as methodological plurality. Much insight is to be found in the discourse of this period. This period witnessed the first discussion of issues which still plague contemporary debates. For instances, in examining the relationship between BCT and equilibrium value theory, most of the scholars felt a need to reconcile the two, though there were fundamental disagreements over whether the terms of that reconciliation should be on Walrasian value theoretic or business cycle theoretic grounds. A similar reconciliation was sought with regard to expectations, although there was certainly no agreement that they be depicted as 'rational' in any sense. Indeed all the theorists, except Hayek, characterised the business cycle as the result of 'irrationality' on the part of individuals or groups. However, even Hayek might have little regard for the Rational Expectations Hypothesis since he is concerned with the *processes* of information acquisition and communication and the *formation* of expectations, and certainly would not embrace the proposition that agents are always able to anticipate the consequences of systematic government policy. From the theorists surveyed, a diversity of patterns of expectations formations and transmission are covered, and although less precise, are not as narrow as those employed by EBC theorists.

Next, Keynes' treatment of business cycles is examined. The development of Keynes' thought is traced from his 1913 paper 'How Far Are Bankers Responsible for the Alternations of Crisis and Depression?' to the *Treatise on Money* and then the *General Theory*. Again, a vast amount of material is covered. Keynes' work is then compared to the other cycle theorists. Seiz (pp. 221-2) outlines that the major and controversial contributions of Keynes to the debates of his time consisted of:

(i) the assertion that without systematic government intervention, advanced capitalist economies will suffer a deficiency of aggregate demand;

(ii) the complete denial that 'productivity and thrift' were relevant to the determination of interest rates; and

(iii) the recognition that workers had no control over their real wage rates through choice of money wage rate.

Despite these significant innovations, Keynes 'did not provide a new systematic way of thinking about the issues discussed by the older theorists'. It is found that Keynes left much behind (e.g. maladjustment of production and structural imbalances, overindebtedness and price/cost theory) and that Keynes' 'revolution' was one of precision of argument and formalism.

In conclusion, Chapter 6 draws the strands of the study together. More constructively than just to illustrate that scholars at the forefront of theoretical debates make poor historians, Seiz has illustrated the richness and the failings of the interwar cycle theories. The success of the Keynesian revolution is found to be primarily an improvement in formal modelling, with a concomitant narrowing of theoretical and methodological scope.

Thus the success of Keynes partly anticipated the success of EBCT. The new mathematical sophistication of EBCT has improved the internal consistency of theory and opened many new avenues of research. However the cost of greater precision and tractability has been in substantive content. The ascendancy of EBCT theorists reflects an emphasis on form over substance, engendering questions about the future direction and progress of macroeconomics.