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REVIEWS

Studies in Business-Cycle Theory. By ROBERT E. LUCAS JR. (Cambridge, Massachusetts & London: The MIT Press, 1987. Pp. x+300. £9.95 paperback.)

This volume contains 14 papers by Lucas (and associates) published over the eventful years of 1969–80. The Lucas view of the world puts individual rational choice at the centre of a world of competitive markets. Institutional arrangements and customs are seen as irrelevant to the task of explanation: they themselves are endogenous, being designed 'precisely in order to aid in matching preferences and opportunities' (page 4). Fluctuations in economic activity are explained through the notion of rational households varying labour supply in response to perceived current and future wages and prices. For Lucas, this is the 'only account' of macroeconomic fluctuations, there being 'no serious alternative' (page 4). This volume contains the result of this research programme: a series of papers which lie at the heart of the development of New Classical macroeconomics, and which have changed the way economists and econometricians view the world – introducing such ideas as the Lucas–Rapping supply function and the Lucas Critique.

The central idea in the Lucas world-view is the Natural Rate Hypothesis (NRH), which he believes consists of three elements. Firstly, that whilst aggregate demand determines nominal income, real output is determined by the behaviour of suppliers in competitive markets (imperfect competition is largely ignored). Second, there is his view that short-run 'rigidities' are due to lack of information about prices. Thirdly, there is his idea of 'rational' expectations (although this was absent from the original 1969 Lucas–Rapping paper). Putting these three ideas together, Lucas developed the 'island' theory of the Natural Rate. Households stuck on each island are unable to see what is happening over the whole Archipelago, and hence are unable to distinguish fully real and nominal price changes, which gives rise to a short-run Phillips curve. Yet: 'Prices and quantities at each point in time are determined in *competitive equilibrium*; the expectations of agents are *rational*...' (page 179). The issue of serial correlation of output is dealt with in his 1979 paper through a combination of informational lags and an accelerator effect on investment, which allows for temporary and uncorrelated shocks to lead to cumulative effects (page 181).

Many economists share neither Lucas' view of the world, nor his theory of business cycles. There are perhaps three reasons for this. First, there is the informational structure of Lucas' models. It is essential that agents observe only what happens on their own island: agents must not observe aggregate variables such as the money supply or price level. However, the money supply figures and various price indices are two of the few official statistics that are published monthly, and are relatively accurate. If this information is available to each islander, however, there is no relation between (current) unanticipated monetary shocks and output. Second, there is the view that labour markets are competitive, so that unemployment is 'voluntary'. This means, for example, that the position of the unemployed in the Depression was like that of farmers: both were sellers in a competitive market, and a fall in demand led to a fall in price, both being made worse off. Indeed, given expectations about 'normal wages', the unemployed had decided to consume their leisure instead while prices were low. Many economists, however, would believe that the unemployment was 'involuntary' – the unemployed were willing but unable to work at prevailing wages (or even slightly lower wages). Lucas, however, repeatedly vilifies the empirical relevance of the concept of 'involuntary' unemployment: he sees it as a 'theoretical construct which Keynes had introduced', and asks 'is it the task of modern theoretical economics to explain the theoretical constructs of our predecessors?' (page 243). As Lucas points out, 'the unemployed worker at any time can always find *some* job at once' (page 242). Whilst Lucas' view may be coherent, many of us remain to be convinced of its truth. Thirdly, Lucas also dismisses the relevance of non-competitive market equilibria, unionised equilibria for example. Whilst he is perhaps correct in observing that it is unlikely that unions played a large role in the Depression (only 10% of workers were in unions), in many countries unions have played a central role in wage-formation since 1945. Few would brush aside unions when trying to explain employment determination in Scandinavia, the FDR or the United Kingdom. For Lucas, however, it appears that individual rationality is only consistent with competitive equilibria.

On the theoretical level there is a considerable gap between the rhetoric and the practice. With the exception of 'Wages, Employment and Inflation' and 'The Neutrality of Money' there is little theoretical motivation: certainly no serious general equilibrium analysis. Most notable here is the absence of serious consideration of firm behaviour – for example in his 1979 paper on equilibrium business cycles, investment is seen as arising from an asset demand by households (the alternative asset being money) (page 183). There is also much hand-waving – for example, in the island story, agents have to be randomly moved across islands each period: for some reason, the agents leave behind their accumulated capital, to inherit the abandoned capital at their new islands; furthermore, homogenous expectations are assumed despite the fact that agents will have different histories (page 187). Yet other leaps are made in silence, though no doubt those are made in the conviction that deep down he is correct. In essence, Lucas simply orientates business cycle theory to a study of the labour supply decision – of 'inter-temporal substitution' – and calls this price-theory.

There is little applied econometric work in this volume: just two papers. This is perhaps not surprising given the difficulty that he argues there is in testing the Natural Rate with rational expectations. However, one must see the econometric work as rather weak: a jump is made from theory to estimable equations, and predictions are then made. The model is estimated and shown to be 'confirmed' by the data. There is no testing against other theories. Why bother to test a theory 'for which there are no serious alternatives'? However, since there are always many theories that are 'consistent' with data, to those that do not share Lucas' beliefs, his evidence is hardly convincing (although it may well be reasonable). Indeed, Lucas berates Tobin for taking 'the correctness of his framework as *given*' (page 281): a comment, it seems, even more appropriate to Lucas himself.

However, whatever the reader's own prejudices, it is fascinating to see the progression of Lucas' thought, and to see his clear and coherent arguments for his theory. These papers have changed the face of macroeconomics, and it is very valuable to have them gathered together in one volume.

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The Dynamics of Productive Relationships. African Share Contracts in Comparative Perspective. By A. F. Robertson. (Cambridge: Cambridge University Press, 1987. Pp. xi+321. £25.00 hardback.)

Economists have been fascinated with the theory of share contracts since Adam Smith, but the recent spate of articles on the efficiency, persistence, and characteristics of sharecropping dates from the book by Stephen Cheung, *The Theory of Share Tenancy*. The book advanced a surprising claim – that sharecropping was more efficient than alternative contracts, not less efficient. Its appeal derived from providing a theoretical defence of the claim and citing rich empirical evidence in its support. Robertson's book is in that same tradition, and should be required reading for all interested in the evolution and structure of contracts in uncertain agriculture. (It is worth remarking that share contracts have also thrown light on such institutions as joint stock companies in advanced industrial societies.) Robertson is an anthropologist who has steeped himself in the theoretical and empirical literature on sharecropping, and undertaken field work on sharecropping in Malaysia. The present book sets out hypotheses derived from this earlier research, and then tests them by extensive field work in four different parts of Africa.

The choice of Africa is not accidental, for most empirical work to date has concentrated on Asia and, to a lesser extent, Latin America. Asia is pre-eminently a region of land scarcity, and sharecropping is viewed as an alternative to fixed rent leasing of land, the share reflecting the scarcity value of land. Africa has often been typified as land-abundant rather than land-scarce, and many have claimed that sharecropping would have no rationale there, and indeed that it was rarely encountered. It therefore provides a searching test of Robertson's thesis, which is that, given the inherent instability of the family as a productive unit, and the great uncertainties in marketing primary commodities, certain relations of production, in particular share-cropping, have taken root because they are flexible and adaptable. 'Sharecropping is a means by which the processes of production can be extended at a season's notice beyond the limits of the household, without violating its integrity as a unit of property holding and consumption.'