It is tempting to compare the book by Cameron and Trivedi with another recent book on count data by Winkelmann.[1] Such a comparison would not be fair, because the Cameron and Trivedi book gives a broad general discussion of count data and Winkelmann focuses on labour market applications only. Many more models are discussed by Cameron and Trivedi, and fortunately – even though their book is mainly aimed at empiricists – they abstain from proposing a general agenda for the applied researcher who used count data models. There is no recipe that works all the time for obtaining empirical results. Instead, the reseacher is helped by a broad overview of potential problems and solutions as discussed in this book.

One of the things I like most about this book is that it is written for people who use count data. The models that are discussed are clarified by many applications. In fact, datasets, computer programs, and related material to this book can be downloaded from a website, which makes this book very suitable for use in graduate courses.

Ruud H. Koning

Frederic S. Lee, *Post Keynesian Price Theory*, Cambridge University Press, Cambridge, 1999. 288 p, £ 40 (ISBN 0 521 32870 5)

Until the seventies various strands of Post-Keynesian economics were at the centre of debates on economic theory and economic policy, and several of its proponents, such as Joan Robinson and Nicholas Kaldor, played a major role in these debates. In particular in the analysis of price formation the Post-Keynesian views were dominant. Nowadays Post-Keynesian economics seems to be somewhat outside the development of economic theory and economic policy, and in the analysis of price formation Post-Keynesian theories have given way to applied general equilibrium models and game theory.

In his book, Frederic Lee surveys Post-Keynesian theories of price formation and tries to lay a new foundation for Post-Keynesian price theory. Lee defines Post-Keynesian economics somewhat loosely as the General Theory 'moved forward to encompass more realistic analyses,' and includes such economists as Sraffa, Joan Robinson, Kalecki, and Kaldor. The book consists of four parts. The first three parts review in turn the doctrines of administered pricing, normal-cost pricing and mark-up pricing, and the fourth part gives Lee's own foundation of Post-Keynesian price theory. Indeed, Lee states that this new foundation is the main purpose of the book, and he argues that until now the character of Post-Keynesian price theory has been too macroeconomic and too Kaleckian, and that it could benefit in particular from incorporating elements of the first two theories.

In part I the theory of administered pricing is surveyed, with the bulk devoted to its development by Gardiner Means from 1930 onwards. Administered pricing is defined as the setting of prices not by the market (i.e. the forces of demand and supply), but by corporate administrators *before* any actual transactions are made; these administered prices are held constant for several transactions after one another. The development of this theory is placed within two environments in which Means played a role: the development of the

1 R. Winkelmann (1997), *Econometric Analysis of Count Data*, second, revised and enlarged edition, Heidelberg, Springer Verlag.

theory of the modern corporation and the separation of ownership and control by Berle and Means in *The Modern Corporation*, and the political environment of the thirties, when Means worked in the Roosevelt administration. Lee then sets out the implications of the administered pricing theory for the analysis of inflation, business cycles and the coordination of economic activities. In particular, Means argued that administered prices are relatively insensitive to demand fluctuations, whereas production takes most of the adjustment to demand. Partly under the influence of target-rate-of-return pricing, which the famous Brookings study *Pricing in Big Business* found to be the major form of pricing behaviour, Means developed the theory of administered inflation in the fifties and sixties, which attributed most of inflation of large corporations increasing their mark-up, e.g. as a response to increases in profit taxes. As for improvements in the coordination of economic activities, Means' theory laid the foundation for industrial policies, such as codes of fair competition, price guidelines, and national economic plans.

In part II, Lee reviews the theory of normal-cost pricing, developed in Oxford in the late thirties and forties. Lee shows how the origins of its development lie with the Oxford surveys held among businessmen about price setting, which showed that businessmen did not make frequent changes in prices and also refrained from making marginal analyses such as equating marginal revenue and marginal cost. He then shows how this led to the theory of full-cost pricing and to the kinked demand curve of Hall and Hitch, which explained the stability of prices in an oligopolistic industry by anticipations of reactions by competitors to price increases or decreases. The theory of normal-cost pricing was further developed by Andrews, within his theory of competitive oligopoly, where because of reactions by competitors prices are set without taking into account short-term variations in output and thus short-term variations in cost, and where entry prevention is a major determinant of the profit margin. Lee also treats further developments by Edwards, where goodwill and economies of scale are also determinants of the profit margin, and developments by Downie, Robinson, and Richardson who analysed the implications of Andrews' theory for innovation and market organisation, in particular to uncertainty and risk.

In part III, Lee surveys the theory of mark-up pricing developed by Kalecki in the thirties and forties, and which he embedded in his macroeconomic theory. In his early publications, Kalecki started from the theory of monopolistic competition, where each firm faces its own demand curve, maximises profits by equating marginal revenue and marginal cost; combined with the assumption of constant average direct cost, this implies that prices are set by applying a mark-up, dependent on the price elasticity of demand, to average direct cost. All this led to the famous 'degree of monopoly' as major determinant of the mark-up. In his later publications Kalecki abandoned the marginalist approach and simply stated that prices are set by adding a mark-up average direct cost. Later contributions in the sixties and seventies extended the theory of mark-up pricing with non-marginalist explanations for the mark-up, such as market structure, advertising, union power (Riach), and investment decisions (Asimakopoulos, Kaldor, Harcourt, Wood, and Eichner), although advertising and union power are already mentioned by Kalecki. In this part Lee also devotes a chapter to the stagnation theses of Steindl and of Baran and Sweezy.

In part IV, Lee develops his own foundations for a new Post-Keynesian price theory, by starting from a large number of empirical studies on price setting. These studies have found normal-cost and target-rate-of-return pricing to be the prevalent forms of price setting. Lee combines these ideas with an input-output model, which results in a pricing model where prices of the present period are set as a mark-up on the sum of intermediate costs, labour costs, and depreciation in the previous period.

A book such as this is to be welcomed, both from the perspective of the history of economic thought since it describes a major part of price theory of the second and third quarters of this century, and from the perspective of the development of economic theory since it attempts to present new foundations for a challenge to mainstream economics. An assessment of a book such as this can then be made on several levels. First of all we may ask how well it describes the theories. In this respect I think Lee has done very well: the descriptions, although perhaps a little long, are complete, accurate and clear, and the passages on the academic and political environments of the major theorists were interesting. The book rightly emphasises the role of uncertainty and risk in the development of the theories. Secondly, we may see how the correctness and impact of the theories are assessed. In some respects I found the book here less complete: a considerable number of empirical studies on price setting, mostly from the forties and the fifties, are reviewed in part IV, but no attention is given to the many econometric studies of the fifties, sixties and seventies that have used one of these three theories as a basis. Also, although many of the empirical studies that are reviewed show the variability of the profit margin, and even its sensitivity to demand, Lee still regards these as supportive of theories that require at least some constancy of the profit margin. The omission of any analysis of the impact and of a comparison with modern approaches is striking, and regrettable, since modern oligopoly theories, modern theories of the corporation and the New-Keynesian economics contain many elements already present in the theories described here. Maybe a shortening of the theoretical descriptions and deleting of the chapter on stagnation theories, which hardly deals with price formation, could have provided some room for these omissions. Lastly, we may ask whether Lee's contribution to the book is convincing. Not only, as already said, is any discussion of modern oligopoly theory and New-Keynesian theory missing, neither is there any critical discussion of how well the empirical studies of the forties and the fifties still describe present-day price formation. Most importantly, the foundations lead to a pricing equation of the traditional mark-up form, where the mark-up is independent of time, whereas many empirical analyses show that it varies in response to several factors, among which demand. So I am not yet convinced that the new foundations for Post-Keynesian price theory have been laid out by this book.

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