BOEKBESPREKINGEN - REVIEWS

J. Riley, *Liberal Utilitarianism, Social Choice Theory and J.S. Mill's Philosophy,* Cambridge University Press, Cambridge, 1988. Pp. 398. £ 25.00

Social choice theory is a flourishing branch of applied logic. Its development is, however, intertwined with scepticism in mainstream economics and poitical science. Do all these clever theorems have anything to do with the performance of markets and governments in the real world? Both Arrow and Sen, the founding fathers of social choice theory, now acknowledge the force of this question and invite scholars to examine the substantial interpretations and implications of formal results. Riley, an Oxonian pupil of Sen, takes up their challenge. His reinterpretation of J.S. Mill's utilitarianism is intended as a demonstration of the relevance of social choice theory to normative democratic theory. It is clear that his analysis is of special interest to welfare economists and political philosophers. As for the relevance to microeconomics and positive democratic theory, I am less sure.

The argument proceeds through three stages. The first stage is an analysis of the connection between social choice theory and utilitarianism, which amounts to a substitution of narrow welfarism (Arrow's ordinalist framework) by broad welfarism. The second stage is a reconstruction of Mill's welfarism in line with revisionism (John Gray, Fred Berger). The third stage is a defense of domain restriction as a solution to Gibbard's problem of inconsistent libertarianism and Sen's problem of inconsistent Paretian libertarianism. The institutionalization of this solution leads to a specific design of democratic political institutions in ideal and real-world contexts, which is the last topic of Riley's analysis.

Stage one starts with a description of Arrow's welfarist philosophy. Riley tries to show that Arrow is a definitional egoist who assumes that individuals reveal their given and selfish values by taking part in collective decision-making, *e.g.,* by voting. The failure of Arrow's social welfare function, conceived as a general foundation of liberal democracy, is the exclusion of rich utility information. The author realizes, of course, that Arrow responds to this failure bij developing a social welfare function, based on extended preference (placing oneself in the position of other individuals). Benthamite utilitarianism returns through the front door of redefined axiomatization and definitional egoism is abandoned, while individual values are still taken as data. Riley's review of several criticisms of Benthamite utilitarianism (unrestricted domain, welfarism, Paretianism, Sen's impossibility, strong anonimity, cardinalism) leads to a rejection of

this new framework. The Benthamite utility concept turns out to be unacceptable, both from an ethical and a practical point of view. Moral persons will not behave like this, since they will reject unrestricted domain. Rational persons in the real world will not reveal cardinal comparable utility values, since they will not provide any behaviourist clues, or they are too heterogeneous to act according to the classical idea of universal pleasure or to the modern idea of the complete identity axiom.

Riley's alternative is the generalized social welfare function (GSWF), which maps any given set of vector-valued utility functions into a social ordering. This function has two special features. Firstly, individual utility is not conceived as subjective satisfaction by economic means, but as realization of objective social value. Utility is a vector of k kinds of correspondence between the position of individual i in social state x and the moral norms with regard to this position (for example, i's share of primary social goods or her level of happiness). Secondly, social welfare is an ordering R which is established by moral guardianship. The guardian (you, me, our representative or all of us in Utopia) defines and classifies the kinds of utility, makes interpersonal comparisons within any given kind and determines a lexical ranking over the different kinds. It can now be shown that (i) liberalism implies a specific GSWF, defined by equal rights to private spheres for individuals and voluntary groups (their choices are considered to be irrelevant to the 'utility of liberty' of outsiders), (ii) liberal utilitarianism implies a specific liberal GSWF, defined bij teleology ('utility in the largest sense'), ethical individualism (equal and impartial treatment of individuals) and hierarchical utility-pluralism (a set of ethical principles with respect to justice, liberty, self-realization, citizenship and the pursuit of satisfaction), and (iii) ideal liberal utilitarianism implies a specific liberal and utilitarian GSWF, corresponding to the highest level of moral and political development of a free society. Riley defines ideal social choice in terms of poitical egalitarianism, personal utility functions of mature liberal citizens, public rationality and domain restriction. The political philosophy of ideal utilitarianism is clarified by axiomatization and is defended against neo-Kantianism (Rawls) and value-pluralism (Sen).

Stage two is a distinct discussion of three important issues in Millian political economy, namely the scientific nature of utilitarianism, the possibility of a plural concept of utility and the coherence of a utilitarian social order. The foundations of Mill's approach turn out to be empiricism, psychology, the possibility of positive interpersonal comparisons of mental phenomena and the necessity of an ultimate standard of value (happiness). Mill's proof of utility is introduced as a test of these sweeping claims. Riley's cautious conclusion begs the question: 'objections to Mill's psychological proof (...) are not proven. (...) I will assume that some version of the utilitarian doctrine can provide an appealing normative interpretation of human conduct, based on a credible (scientific) descriptive interpretation of human nature' (p. 162).

Riley's analysis of the other two issues is much stronger. Mill's utility concept turns out to be a classification of two self-regarding kinds of utility (personal expedience, private welfare included, and self-realization) and two kinds of other-regarding utility (general expedience, public welfare included, and morality, *i.e.*, charity and justice). In Mill's ideal world, maximizing utility is not the denial of negative and positive liberty, but its expression. Mill's utilitarianism contains certain principles with respect to prudent action, moral obligation, helping, equality, liberty and self-realization. Riley argues, rather convincingly, that Mill's vision of liberal rights (property rights included), the role of the state and social harmony in civil society is non-neutral and hierarchical.

Stage three concerns the implications of Neo-Millian utilitarianism (NMU). Gibbard (1974) showed how the interaction between a conformist and a nonconformist can undermine the consistency of a liberal society. A liberal could respond by arguing that only coherent legal rights are legitimate or that only individuals with separate preferences should have rights. In terms of NMU these solutions will not do. Riley prefers social indifference, public intervention (when personal well-being and/or liberal justice are at stake) or voluntary private domain-restriction as a practice of liberal citizens. Sen (1970) showed, by means of the example of meddlesome preferences regarding *Lady Chatterley's Lover,* that certain well-defined conditions with respect to efficiency, liberty and the domain of social welfare cannot be realized simultaneously. NMU suggests two solutions: the priority of liberty (since justice and liberty are kinds of pleasures which lexically dominate public expedience in Sen's case) or public intervention (in a reinterpretation of Sen's case, when meddlesomeness turns out to be a real concern with the well-being of other persons). The method of domain restriction depends on a 'constitutional' classification of utilities. Riley does not compare his method with the Sen-Suzumura method of conditional Paretianism. He offers, however, a complete NMU sketch of the constitution of liberal democracies in chapter 12. In chapter 13, the final chapter, Mill's disposition utilitarianism (based on the disposition to experience higher forms of utility) is presented as a credible alternative to contemporary non-utilitarian liberalism.

This is an excellent study for readers who want to examine the significance (if any) of Mill's political philosophy and of social choice to contemporary liberalism. This reviewer got the impression that Mill beats the *aficionados* of social choice theory. Riley's utilitarianism completely differs from the kind of welfarism that was attacked by Hicks and Sen. It runs into the problem of partial, and largely unpsychological, orderings of multi-dimensional welfare levels of different persons. It should be taken seriously, as an alternative to welfarism.

J.W. de Beus

A.H. Meltzer, *Keynes's Monetary Theory. A Different Interpretation,* Cambridge University Press, Cambridge, *etc.*, 1988. Pp. xv + 336.

This book originated from Meltzer's paper 'Keynes's General Theory: A Different Interpretation' that was published in the *Journal of Economic Literature* in March 1981. This paper caused quite a stir among fellow interpreters of Keynes and the resulting debate between Meltzer and his opponents led to the publication of this book.[1] As Meltzer acknowledges in the preface of the book his interest in the economics of Keynes originates from the following two questions. First of all, if nominal wage rigidity is *not* the crux of Keynes' theory of output and employment for the economy as a whole, what then is the important theoretical message of the General Theory (hereafter GT)? Secondly, what do other economists mean by a 'Keynesian' theory? The answer to the first question constitutes the major part of the book (Chapters 1-5 and 7) whereas the

1 See A.H. Meltzer (1981), 'Keynes's General Theory: A Different Interpretation,' *Journal of Economic Literature,* 19, pp. 34-63. This article led to comments by Patinkin, Davidson, S. Weintraub, Crotty and a rejoinder from Meltzer in the March 1983 issue of the *Journal of Economic Literature.*

second question is only dealt with in chapter 6. In my view, the value of Meltzer's contribution to the enormous literature on interpretations of Keynes' theory must be judged against the background of these two questions. Does Meltzer's interpretation capture the essence of the theoretical insights of Keynes that set Keynes apart from the classical economists and, furthermore, does this book differ from other interpretations of Keynes' theory?

In the opening chapter Meltzer already gives a fairly detailed account of his argument. His interpretation of Keynes consists of three major arguments. The first argument concerns Keynes' policy views and the relation between these policy views and Keynes' theory, especially the GT. According to Meltzer, Keynes did not favour counter-cyclical fiscal policies, neither in his pre-GT writings nor in the GT. Instead, fiscal policy as well as monetary policy should be directed at stabilizing the economy by means of stabilizing the rate of investment. In decentralized economies the rate of private investment is prone to excessive fluctuations and the government should stabilize this rate through an increase in the state direction of investment and through a favourable interest rate policy. In fact, Meltzer argues that Keynes' views with respect to the overall stance of the government budget reveal a preference for rules rather than discretion. Keynes' emphasis on the public control of investment illustrate that Keynes' chief policy prescription was mainly one of institutional reforms.

The second argument deals with what Meltzer considers to be Keynes' main theoretical contribution, namely the recognition that in decentralized economies the capital stock, and hence the level of output and employment, is below the social optimum because of uncertainty. The existence of uncertainty leads to a divergence between the private and the social rate of return on investment. This implies that investment will remain below its social optimum because, given the existing uncertainty, private investors have no incentive to revise their investment decisions. Since this second argument constitutes the core of Meltzer's interpretation of Keynes' theoretical innovation in the GT, it is instructive to quote Meltzer at some length. '...Fluctuations in output impose social costs that cannot be removed by private action. Variability imposes a premium for bearing risk or uncertainty that raises the market rate of interest above the social productivity of capital and holds the capital stock below the social optimum. Non-interventionist, *laissez-faire* policies therefore confine the economy to a suboptimal position' (Meltzer (1988) p. 15). In Meltzer's opinion this theoretical insight serves as a foundation for Keynes' long-held policy views about state investment.

The third major argument underlying Meltzer's interpretation is that the abovementioned ideas on Keynes' theory and policy views are absent or unimportant in other interpretations of Keynes. Meltzer concludes the opening chapter with his assessment of Keynes' work. On the whole this assessment is rather positive given the fact that Meltzer interpretes Keynes as saying that 'a major task of economists is to find the rules and arrangements that reduce risk and uncertainty to the minimum inherent in nature... the study of economic policy is a search for rules that reduce excess burdens.' (Meltzer (1988), p. 16). The remainder of the book contains a careful exegesis of Keynes' writings to support the three abovementioned arguments and his assessment of Keynes.

Chapters 2 and 3 deal with Keynes' pre-GT writings, they focus particularly on Keynes' philosophical ideas, policy views and the development of Keynes' theoretical views prior to the GT. In chapter 2, Meltzer shows that Keynes' policy views are influenced by his philosophical ideas. Keynes was convinced that governments should be in the hands of an intellectual aristocracy whose main interest would be the public in-

terest. In this respect Keynes was optimistic about the intentions of public officials. Given this connection between Keynes' philosophy and policy views, Meltzer argues that Keynes' policy views did not really change throughout his life. In *The End of Laissez-Faire,* for instance, Keynes gives three examples of collective action which are also mentioned in the GT and his post-GT writings, namely the state control of currency and credit, the regulation of savings and investment and the control of the size of the population. Meltzer convincingly argues that despite these policy views Keynes was strongly opposed to socialism. In chapter 3, Meltzer deals with Keynes' major work on monetary theory, the *Treatise on Money.* Meltzer's discussion of the Fundamental Equations is very illuminating since it brings out the close connection between the *Treatise* and the GT. The GT did not come out of the blue, the major differences between the *Treatise* and the GT concern the variability of the aggregate level of output and the importance of uncertainty in the GT.

Chapter 4 covers about one-third of the book and it is the most essential chapter in Meltzer's interpretation of Keynes. In his analysis of the GT, Meltzer combines the arguments about Keynes' policy views and about the theoretical innovation in the GT. Pages 123–135 contain the heart of Meltzer's argumentation. In order to *maintain* full employment, capital stock must increase. This requires an upward shift of the *expected* marginal efficiency of capital schedule or a decrease in the *expected* long-term rate of interest. Changes in monetary policy or wages will only result in a temporary change in the level of investment. Since the rate of investment is governed by expectations and uncertainty, it is by no means clear why private action should result in a capital stock that leads to full employment. In fact, according to Meltzer, Keynes argues that only a greater influence of the government on the level of aggregate investment can guarantee the persistence of full employment. The institutional reforms mentioned in chapter 2 thus receive a theoretical foundation in chapter 4. Starting with Hicks' *Mr. Keynes and the Classics,* the mainstream interpretations of Keynes missed Keynes' main point. According to Meltzer: 'The development of Hicks' IS-LM model without expectations submerged Keynes' thesis directly' (Meltzer (1988), p. 134). At the end of chapter 4 Meltzer mentions four important analytical difficulties of the GT; first of all, the unsatisfactory treatment of the content of expectations, secondly, the inflationary consequences of the analysis in the GT, thirdly, the issue of capital flights and finally, the inadequate analysis of the *persistence* of unemployment. In my view, the validity of this criticism depends to a large extent on the question whether Keynes' analysis should be incorporated into a neo-classical framework. Notwithstanding his criticism of the GT, Meltzer concludes that Keynes' vision about the workings of a decentralized economy were and still are basically right (see also chapter 7).

The main message of chapter 5 is that Keynes' writings on the international economic order reveal that his views on this subject did not change much in the course of his academic career. Bretton Woods follows logically from his ideas on the state control on currency in the 1920s. In chapter 6 a brief survey of other interpretations of the GT is given and these interpretations are compared with Meltzer's thesis. Meltzer rejects the Keynesian version of the neo-classical synthesis (wage rigidity, elasticity pessimism or money-illusion) as being beside the point. Meltzer notices similarities between his approach and Leijonhufvud's theory of coordination failures, but argues that Leijonhufvud misses the main coordination failure, namely that of moral hazard which leads to a private rate of interest above the social optimium (p. 269). Davidson's (the post-Keynesian) emphasis on Keynes' analysis of the essential properties of money is

misplaced according to Meltzer. These properties are the moral hazard problem in disguise, according to Meltzer. In my view, Meltzer overemphasizes the differences between his interpretation and some non-mainstream interpretations like those of Leijonhufvud and some Post-Keynesians. Meltzer's interpretation only offers a different perspective with respect to mainstream interpretations. Meltzer circumvents the interesting question of how his interpretation relates to his earlier work with, for instance, Brunner in the monetarist tradition of the neo-classical synthesis. It seems to me that if Keynes was globally right, Brunner and Meltzer *et al.* were globally wrong. The identification of Keynes' theoretical contribution with problems of moral hazard is interesting but not new. In recent years there have been numerous articles on the consequences of asymmetric information in the so-called new-Keynesian literature.[1] My conclusion is that Meltzer's analysis does indeed capture essential and often neglected elements of Keynes' theory and policy views, but that these insights are to some extent less original than Meltzer claims them to be. Nevertheless, Meltzer's book offers a well-written and well-documented account of Keynes' writings and there is much to be said for Meltzer's view of Keynes. As such, I think that this book is an enrichment of the literature on the economics of Keynes.

Harry Garretsen

Christine Sauer, *Alternative Theories of Output, Unemployment, and Inflation in Germany: 1960–1985,* Lecture Notes in Economics and Mathematical Systems, no. 326, Springer Verlag, Berlin, *etc.*, 1989. Pp. 206. DM 45,—

This book contains an empirical study of the relevance of three alternative macroeconomic theories of the dynamics of output, unemployment and inflation for Germany: The Keynesian theory, the New Classical theory and the Monetarist theory. The disagreements between these theories do not concern the steady state, but rather the dynamics between steady states, where the unemployment rate deviates from its equilibrium rate.

The most interesting part of the book is chapter V. In this chapter a general model is outlined, which is similar to the framework of Stein (1982).[2] The competing theories can be derived from this general framework under certain parameter specifications reflecting the propositions of the alternative schools of thought. From the general framework, reduced-form equations for output, unemployment and inflation are derived, in which the alternative macroeconomic hypotheses are nested. Contrary to many other studies, which focus only on the specification and estimation of a single theory, this synthesis approach enables an evaluation of the explanatory power of the alternative theories.

1 See, for instance, J.E. Stiglitz (1987), 'The Causes and the Consequences of the Dependence of Quality on Price,' *Journal of Economic Literature,* 23, pp. 1–49. In the GT, Keynes is very clear about the importance of moral hazard problems with respect to the investment decision, see especially chapter II, pp. 144–145. In my view, this section contains Meltzer's interpretation in a nutshell.

2 J.L. Stein (1982), *Monetarist, Keynesian and New Classical Economics,* Oxford.

In the reduced-form equations, unemployment and output are related to their lagged dependent variables and real balances and unanticipated money growth. Monetarist and Keynesian theory predict that money influences the real sector significantly in the short run because of sluggish expectation formation, while the New Classical theory predicts that only unanticipated money growth is relevant. On the basis of skilled econometric analysis the author concludes that the estimation results indicate no influence of unanticipated money growth on real sector variables, while changes in real balances exhibit significant coefficients, thus supporting the Monetarist/Keynesian view. This conclusion holds for different specifications of unanticipated money growth and different estimation periods which cover different exchange rate regimes.

The relevance of the Monetarist theory versus Keynesian theory is tested by estimating a reduced-form price equation. Prices are releted to lagged inflation, and moreover to money growth, which reflects the Monetarist view that inflation is mainly a monetary phenomenon, and the Phillips curve, reflecting the Keynesian view that prices are determined by unit labour costs, which in turn respond to unemployment deviations from the natural rate. Furthermore, foreign interest rates and, in some cases, import prices are added as explanatory variables to allow for foreign influences because of the open character of the German economy. The empirical evidence supports the Keynesian model. The Monetarist and New Classical propositions are rejected since neither actual nor anticipated money growth significantly affects inflation.

Chapter two reviews the performance of the German economy and discusses some institutional features. Chapter three presents a survey and critique of the relevant empirical literature on the German economy. Chapter four presents a causality analysis in order to test some basic assumptions which underly the specification of the model in chapter five.

As Sauer admits in the conclusion, the general framework upon which the empirical analysis is based is deliberately simple in structure and thus easily criticized. Many simplifying assumptions are made. Moreover, only lagged regressors are used to ensure Granger 'causality.' The analysis is therefore mainly directed to investigate statistical causalities. The statistical approach of the study is illustrated by the way anticipated money growth is modelled. Any macro-variable at time t-1 is assumed to have some predictive power, even if there are no strong theoretical reasons to explain this. In my view, application of such a methodology to highly aggregated data cannot yield more than indicative conclusions about economic causality.

Finally, one wonders what the relevance of the conclusions about the short-term determinants of output, unemployment and inflation is for economic policy in the current situation of high unemployment in Germany. The short term covers the time in which actual unemployment converges to its equilibrium value. The question is: What has happened to the equilibrium unemployment rate? In other words: How short is the short run? In the empirical study, equilibrium unemployment is assumed to be constant, which must imply that the unemployment rate may deviate from the equilibrium rate for a long period and that present unemployment is higher than equilibrium unemployment. If this assumption is right, the conclusion of the study that the short-term dynamics in Germany can best be explained by Keynesian theory implies Keynesian policies to combat present high unemployment. However, the empirical specifications are too simple to test the assumption of constant equilibrium unemployment. If equilibrium unemployment has risen, for example as a result of hysteresis, Keynesian

policies may be less effective in reducing unemployment. Therefore it is hard to derive implications for economic policy on the basis of the present study.

J.J. Graafland

D. Glasner, *Free Banking and Monetary Reform,* Cambridge University Press, Cambridge/New York, *etc.*, 1989. Pp. xvi + 276. £ 25.—

Academic fashions often come and go with political debate and evolutionary institutional challenges. Increasing competitiveness in society and partial deregulation of banking and financial markets offer convincing examples. The recent revival of theoretical and historical interest for free banking and monetary institutions by monetary theorists and economic historians seems to be a predictable event. The book by Glasner is another product of this academic interest for free banking which started in 1976 with the important monograph by F.A. Hayek (*Denationalisation of Money*, Institute of Economic Affairs, London), and was followed in 1984 respectively by the provocative books of L.H. White (*Free Banking in Britain: Theory and Experience 1800-1845*, Cambridge *etc.*) and G.A. Selgin (*The Theory of Free Banking*, Cato Institute, New York).

The main message of Glasner's monograph is a proposal for monetary reform where monetary authorities should be instructed to pursue price-level stability as their most important policy objective. This commitment to stabilize the price level is viewed within a competitive monetary regime with free banking. The main part of Glasner's book is devoted to provide intellectual and historical arguments supporting his proposal.

Glasner has organised his monograph in three parts. The first part is on a theory of monetary institutions and describes in one chapter the evolution of money and banking and in another chapter the role of the state for the evolution of money. This chapter is partly historical, going back to the seventh century B.C. when coinage originated in ancient Lydia, and partly analytical. Glasner maintains the hypothesis that there is a tension between the efforts of the banking system to reduce the costs of providing money and the state to maximize seigniorage. This exists because of the expenditures associated with the national security role which also gives the state an appetite for high inflation.

The second part, consisting of five chapters, deals with the development of monetary theory and discussion of monetary regimes. The author's view is that the classical theory of money put forward by *e.g.* A. Smith has erroneously been neglected and surpassed by Hume's quantity theory which has become the base for Peel's Bank Charter Act of 1844 with the monopoly of the Bank of England to issue notes. According to Glasner, conventional monetary theory has taken state-dominated monopoly money for granted, but has ignored competitively supplied money and the role of a competitive monetary system. Therefore, conventional monetary theory, which has been inspired mainly by the 19th century quantity theory, has little to tell about current trends towards deregulation of banking and financial markets. To understand this, the classical theory of money, put forward in rudimentary form by Adam Smith, may be helpful. Vital to Smith's monetary theory is convertibility into a valuable asset such as gold or silver or a basket of commodities, which pins down the value of money. However, in Glasner's view this convertibility makes the value of money independent of

the quantity of money the banking system creates because an oversupply of money will result in a drain on the banks. Clearly, this idea reminds us of the working of the classical gold standard and its inability to bring about economic stability in the interwar period. Glasner offers an interesting historical account of the heyday of this gold standard and an insightful analysis of its failure with the shift of emphasis from monetary policy to the Keynesian approach which is sceptical about the stability of free markets. Glasner praises the Chicago economists of the 1930s, 1940s and 1950s for being sufficiently self-confident to develop the monetarist counter-revolution.

The third part of the book, consisting of four chapters, deals with the competitive monetary regime Glasner has in mind. His proposal is straightforward. We should adopt the competitive paradigm of A. Smith and the banking school and reject the anti-competitive paradigm of D. Hume and the currency school. This would imply a competitive banking system, eliminating the moral hazard problem and undesired externalities for the taxpayer which immunizes the banking system against instability. As to monetary policy, Glasner proposes to explicitly instruct monetary authorities to pursue price stability as their primary target. This should not be done by controlling the quantity of money but by introducing indirect convertibility, that is making the currency unit redeemable for a constant purchasing power rather than gold, an idea reminiscent to Fisher's plan of 1911. As to the comprehensive price index to be stabilized, Glasner proposes a labour standard.

Glasner's book is a provocative essay on the political economy of monetary regimes. He shows the importance of a single policy decision for monetary thinking and attempts to reverse the received paradigm by drawing attention to Smith's ideas on competitive money supply. It is interesting to note that Glasner's ideas remind us both of the Keynes-Schumpeter controversy of the 1920s on monetary management and of the discussions on the neutrality of money of the 1920s by Hayek, Koopmans and G.M. Verrijn Stuart around 1930. This book is an interesting treatise, worth reading, but the reader should be aware of Glasner's fundamental beliefs.

M.M.G. Fase

Hansjörg Herr and Klaus Voy, *Währungskonkurrenz und Deregulierung der Weltwirtschaft* (Currency Competition and Deregulation of the World Economy), Metropolis Verlag, Marburg, 1989. Pp. 230. DM 29,80

This book is an elaborated version of a report by the Green Party in the German Parliament. It is an attempt to establish a Green view on German monetary policy and international - in particular European - monetary cooperation. The book starts with an analysis of international monetary developments since 1945, with emphasis on the role of the Federal Republic of Germany. Central theme of this part of the book is the strategy of 'stability-oriented undervaluation' that Germany is supposed to have pursued. The authors do not give an explicit definition of this strategy, but it presumably consists of restrictive budgetary and monetary policies and maintenance of a low real exchange rate through moderate wage increases, high productivity increases and capital exports. This mercantile, non-cooperative strategy has, in a situation of largely unregulated private capital flows, enabled Germany to maintain persistent surpluses on

the current account of the balance of payments and to set the standard in the international competition of currencies which the authors perceive but do not define either.

A second theme of this part of the book is the instability of private capital flows. This had led to large exchange rate swings and has made any policy that harms the interests of owners of private financial wealth (the authors' euphemism for inflationary policies) virtually impossible. The dominance of capital movements has therefore put limits on national sovereignty. Together with Germany's policy of stability-oriented undervaluation it has forced countries - not only EMS countries but even the USA at the end of the seventies - into more restrictive policies than they actually prefer, according to the authors.

The most obvious question raised by the authors' analysis is how Germany can manage to maintain an undervalued currency in a situation where exchange rates are determined by private capital flows. This question becomes all the more pressing since the authors are of the opinion that the Bundesbank's monetary policy is exceedingly restrictive, which, if it were true, would seem to imply an excessive appreciation of the Deutsche Mark. They rightly point out that realignments in the EMS show a tendency to be too late and too small to fully compensate for inflation differentials, giving Germany a competitive edge over its EMS partners (which, by the way, is against the wishes of the Bundesbank since it implies import of inflation, and can therefore hardly be considered a part of some obscure German strategy). This, however, cannot be the answer. What counts is the effective exchange rate, as determined not by bilateral payments balances among EMS countries but by the overall balance of payments. Why doesn't the Deutsche Mark, assuming a very restrictive monetary policy on the part of the Bundesbank and free capital movements, appreciate so much *vis-à-vis* the dollar and other floating currencies that its presumed undervaluation is eradicated? The problem probably lies with the authors' identification of undervaluation with a situation of persistent current account surpluses. They view a balanced position on the current account over the medium-term as a political norm, to be set in order to keep countries from building up large debtor or creditor positions, which they disapprove of. They are, of course, entitled to do so (indeed, this reviewer wouldn't want to argue with that opinion), but from an economist's point of view it would have been preferable to maintain a clearer distinction between economic analysis and political opinion.

After their analysis, the authors present proposals for reform of the international monetary system and of the EMS. The main element of these proposals is the reintroduction of capital controls and the imposition of a foreign exchange turnover tax in order to prevent speculative capital flows. This should allow countries to pursue the policies of their choice, without being forced into restrictive policies by potential capital outflows. For the same reason of maintaining national economic sovereignty, the notion of subsequent European monetary integration is rejected. The system of stable but adjustable exchange rates within the EMS is to be maintained, but pressures for adjustment should become more symmetrical. To that end, the authors come up with proposals for new intervention rules, neglecting the fact that nothing in the existing EMS mechanisms is in itself asymmetrical. Exchange rates within the EMS are to be set by a council consisting of the finance ministers and central bank presidents, which decides by weighted voting, at such levels that no persistent current account surpluses or deficits are possible. If it turns out that balanced current account positions cannot be reached in this manner, protectionism is to be used.

Although dissatisfaction with the large exchange rate swings that have occurred since

the collapse of the Bretton Woods system is understandable, the question is whether the authors' solution is not worse than the problem. Why have countries progressively abolished capital controls? Apparently because they find that the advantages of freedom of capital movements outweigh any possible disadvantages. Countries may actually welcome the discipline that potential capital outflows impose on their economic policies, and the allocative efficiency that international capital transactions can bring about. A similar reasoning would seem to apply to the German dominance and perceived asymmetrical adjustment pressures within the EMS. Other countries, despite occasional complaints, apparently find these advantageous in the end because why else would they strive to maintain a stable exchange rate *vis-à-vis* the Deutsche Mark? To the extent that these remarks are justified, it might even be said that the authors have come up with a solution to a non-problem. Furthermore, by putting so much emphasis on their norm of balanced current account positions, the authors replace the limits set to national economic sovereignty by potential capital movements by an even more severe one – the exact opposite of what they say they want.

All in all, this book should probably be regarded as no more than a first attempt to establish a Green view on monetary matters. Partly because of the unconvincing analysis, it leaves the reader with the impression that the authors have taken certain positions just in order to deviate from more common points of view. The Greens would do well to do some additional thinking on the subject before coming to more definitive opinions.

J.R. Pruntel

S.K. Kuipers, B.W.A. Jongbloed, G.H. Kuper and E. Sterken, *CESAM, Het CCSO-jaarmodel van de Nederlandse economie,* (CESAM, The CCSO Yearly model of Dutch Economy), Wolters-Noordhoff, Groningen, 1988. Pp. 205. Dfl. 34,50

Apart from the pioneering work of Tinbergen, the role of universities in macroeconometric model building in The Netherlands has always been modest. Following Tinbergens lead, the Central Planning Bureau has dominated the field for decades. Only in the 1970s did the first non-CPB models of Dutch economy begin to emerge. And the new CESAM model, constructed as a joint effort of the universities of Groningen, Twente and Maastricht, is still an example of a rare breed.

It is not difficult to explain why the situation in The Netherlands is so different from that in a country like the UK, where in the past university-based macroeconometric model building used to absorb a substantial part of the budgets for social research. After World War II, national expertise was highly concentrated in the CPB and it took years before the dispersion of that knowledge allowed alternative efforts. Moreover, the CPB maintained high standards and succeeded to remain in the *avant-garde* with respect to some major developments in model building, notably the integration of the dynamics of demand and supply. However, challenges from outside, partly from university research, partly from research in De Nederlandsche Bank appear to have stimulated the incorporation of disequilibrium elements and the analysis of the financial sector in CPB models and possibly also of the analysis of the government sector.

Providing such challenges is naturally a task for university research. Given the

tremendous amount of not very gratifying work – at least from an academic point of view – involved in the development and maintenance of full-fledged macroeconometric models, it would seem advisable to concentrate university research on partial studies highlighting underexposed or underdeveloped areas of macroeconomic analysis. Or, alternatively, in view of the educational task of the university staff, to focus on the essentials of macroeconometric models and their use, bypassing confusing details.

The CESAM model can hardly be fitted into one of these strategies. It is certainly not a partial analysis. Its scope is the same as that of the macroeconometric models developed at other institutions in The Netherlands. It contains soms innovative elements, such as the integration of a putty-clay production technology in an overall macroeconometric model, and a division between central and local government, but its innovations do not appear very fundamental and on the whole the model is rather conventional, as its builders are ready to admit. It is not an example of back-to-basics either. The elaboration of the government sector surpasses that of the corresponding block in the CPB-model in detail. This raises the question what exactly its builders had in mind, as any macroeconometric model is some uneasy compromise between scattered theoretical notions and reluctant empirical findings, that should be judged against its objectives.

These objectives are clearly, but not very precisely, stated as the evaluation of macroeconomic policy and the generation of macroeconomic forecasts. This offers the rationale for so much detail, that many of the instruments of fiscal and monetary policy can be investigated separately, but it provides no clue to *e.g.* the question why choice theory is much more elaborated on in the portfolio decisions than in the decisions governing the supply of goods and labour.

The report on the CESAM model contains a well-structured and detailed comparison of the model with its predecessors. In this way the reader is very efficiently informed about the 'how' of the model, but the 'why' remains an open question. The special attention given to the formal analysis of the consequences of the putty-clay technology, the portfolio analysis of the financial sector and the detailed treatment of the government sector, clearly reflects some major interests of its main constructors (Kuipers, Kuper, Sterken, and Jongbloed). Other elements are treated much more superficially. There is no link between the costs according to the production model and the determination of prices for instance. As the treatment of these other elements is usually roughly in line with the macroeconometric tradition, there is no reason to blame the builders with extreme negligence. It should, of course, also be kept in mind that the authors see their joint product as a first step. But without any information about the steps ahead it is not easy to judge the progress made so far. Several equations are candidates for further elaboration. In view of the recent research, in which wage formation is scrutinized for possible hysteresis elements, the traditional wage equation seems a prominent example.

For an evaluation of the model it seems fair to focus mainly on the three major principles mentioned above.

The productive capacity and capacity employment follow from the aggregation of the vintages in use, with *ex-post* fixed factor proportions. As usual in vintage models, scrapping is dependent on the existence of a positive quasi rent, but this quasi rent is corrected for persistent underutilization. The technology of new investments is based on the (partial) maximization of the net discounted value of these investments over the period they will be used. This period is assumed to be not only fixed *ex ante,* but also constant over

the whole sample period. The latter assumption clearly conflicts with the explicitly variable changes in expected real wages and working hours, which conceptually are bound to affect the utilization of vintages in the future. It is not unlikely that this inconsistency is deliberately introduced in order to avoid awkward intertemporal dynamics, and its quantitative impact may be small, but no such comments can be found in the report. Similarly, it is not obvious that the maximization of the net discounted value of new investment in order to determine the optimal technology per vintage coincides with profit maximization of the firm, as investment, employment, scrapping and pricing may be joint decisions.

In fact, the simultaneous treatment of these decisions in an intertemporal framework would give rise to such complications, that it would not be fair to expect their integration in a large macro model. This being said, the links between the production model and the investment decision in the CESAM model are anything but strong. Apart from the productivity of new vintages, only the change in the overall utilization rate (without a proper explanation not scaled on any stock or flow) is specified to affect new investment. The additional determinants include items like changes in expected sales, which appears in line with the assumed proportionality of investment with the planned increase in the total production capacity, but also some additional variables, which, in a more elaborate setting, might prove to be not only relevant for the investment decision, but also for the choice of technology. Moreover, it is not clear how capital replacement is dealt with. Summarizing, the investment equation may well reflect supply conditions, but the elements concerned are only partly connected to the production model. However, the latter model does imply an impact of anticipated wages on planned factor proportions.

Apart from the foreign sector, which is rather consolidated, the details of the financial submodel are comparable to those of the larger models of the Dutch economy. The balance between theoretical rigour and empirical concessions is tilted towards the latter. The authors say to favour an acceptable fit rather than undue restrictions; obviously they fear that current theory is not general enough to explain the facts. This is an interesting suggestion, but they make no real attempt to fill the gap. In contrast to what is done in some other portfolio model applications, symmetry and additivity restrictions are not imposed on interest parameters, and (as a consequence of asymmetries in the model specification rather than of the estimation method) balance restrictions are implemented by residual treatment of one portfolio item. Nevertheless, the fit is not always very satisfactory.

The most crucial interest rates - those on short-term and long-term bank loans and government bonds - result from market clearing. Other interest rates are set by the central bank, the private banks or the foreign sector. The guilder/dollar exchange rate is directly linked to the DM/dollar exchange rate. Obviously, this reflects the recent past, but the model lacks a solid mechanism that warrants this relationship, as the central banks' discount rate is exogenous and other comparable devices, that might keep the guilder in line with the DM, appear absent, while exchange-rate expectations just follow an autoregressive scheme, without any clear feed-back to foreign financial transactions or the exchange rate itself. Clearly, some rethinking on this part of the model would be in order. Presently, the model is very vulnerable to the Lucas critique in this respect, as it suggests more leeway for the central bank than would seem realistic.

The modelling of the government sector is quite ambitious. In contrast to other models this sub-system discerns central government, local government and social insurance institutions, including their financial interrelations. One would expect the

Ministry of Finance to operate even more elaborate models, but there are no clear indications that it does; at any rate, no results of such activities are in the public domain. However, the public is frequently confronted with severe errors in estimated expenses and revenues – which more than once give rise to nervous discussions about policy adjustment – so that any attempt to improve the grip on government finance should be welcomed. The transformation of given institutional relationships into stable macroeconometric equations turns out to be much less straightforward than the naive observer would think. In fact, the model is a mix of definitions adapted to the high level of aggregation and estimated econometric relationships. Many equations contain autonomous terms standing for changes in regulations. In one case, policy rules are introduced by means of reaction functions. This concerns the mandatory adjustment of current expenses to current revenue by local government. Among other things, the latter implies that public employment is partly endogenous.

Not all the equations presented confirm common knowledge. Some income transfers and subsidies lack proxies for income development other than unemployment indicators, though the regulations would suggest their relevance. Sometimes the fit is poor. In particular the revenue of taxes on non-wage income appears hard to explain. Nevertheless, the sub-model reveals some interesting empirical findings, such as the trade-off between investment and unemployment-related income transfers in local government spending and the (informally much debated) economic component of the reduction of the labour force due to disability. On the whole it constitutes a major contribution to the exploration of an area that is still poorly known.

The authors, of course, had to make some deliberate decisions on what to endogenize. Whatever their reasons, they decided against the specification of the substantial dependence of Dutch government revenue on the development of energy prices and the value of the US dollar. As the equations outside the three principles discussed reflect much less ambition, just a few comments may be in order. The quality of the fit may have governed quite a number of choices. The exports equation and the consumption equation are prominent examples. The empirical finding that the acceleration of reweighted world imports outperforms the growth rate in the (partial) explanation of the growth of Dutch exports – which I trust many investigators have come across – has never led to the acceptance of this acceleration in combination with a constant, representing a trend, as the relevant market variable in any previous model. If this empirical phenomenon has to be interpreted as resulting from the exclusion of the world trade variable from a Koyck-transformation, as Brandsma and Van der Windt[1] suggest, the CESAM builders could better have resisted this temptation. A similar remark may be in order with respect to the inclusion of the level of the real interest rate rather than its change in the explanation of the growth rate of private consumption.

In terms of inequality coefficients the model tracks the past reasonably well, at least on the whole. The *ex post* forecasts of overall employment and of several interest rates are far from accurate however, as the corresponding graphs confirm.

The results of additional simulations do not seem to differ too much from those of similar shocks in other models. Dutch interest rates appear to adapt to foreign interest rate levels without much delay; the adjustment of prices may take more time, but the

1 A.S. Brandsma and N. van der Windt, 1980, *Substitutie op basis van prijzen in de buitenlandse sektor* (Substitution Based on Prices in the Foreign Sector), Discussion Paper no. 8003/G, Erasmus University, Rotterdam.

Pigou effect, resulting from the inclusion of wealth in the determination of consumption, does not seem to preclude eventual overshooting. A general reduction of taxes hardly incurs any positive supply effects, whereas wage moderation furthers all conventional targets of economic policy, at the cost of real wages and private consumption.

Summarizing, the CESAM model constitutes a competent and welcome enlargement of the assortment of macroeconometric models of the Dutch economy. Its specific contribution is mainly the elaboration on the public sector, although the financial sector and the production sector contain some innovations as well. The choice between rigour in terms of conventional theory and fit is often explicitly made in favour of the empirical findings. The level of rigour also varies from sector to sector. However, the model is rather conventional on the whole and clearly fits into the Dutch empirical tradition. As the authors consider the present model as a first step, and as they obviously have serious reservations about the applicability of conventional theory to Dutch macroeconomic data, the intriguing question remains which direction the CESAM research program will take in the future.

J.C. Siebrand

J.L. Thompson, *A Financial Model of the UK Economy,* Aldershot, Avebury, 1988. Pp. 158. £ 25.—

This study describes a quarterly financial model of the UK economy which the author has constructed and estimated for the period 1973 to 1980. The aim is to highlight certain key issues such as the determination of the money supply, the exchange rate and the interest rates, taking into account the interaction with monetary policy and expectations. The model is applied to evaluate the effects of different intervention policies in the foreign exchange markets.

The model is small and consists of ten behavioral equations describing the behavior of the private and banking sectors. In this way the author attemps to strike a balance between obscuring the essentials of the model by too much detail and oversimplification. The theoretical specification of the model is based on three major principles: firstly, portfolio balance of the banking and non-bank private sectors; secondly, bank lending is an important variable in the portfolio choice; thirdly, the rational expectations hypothesis is adopted within the model. Chapter 2 of the study offers a useful survey of the financial sectors of existing mainstream macroeconomic models of the UK economy. In chapter 3 the author illustrates the approach adopted by presenting a simply stylized portfolio balance model based on the multiplier analysis of Brunner and Meltzer. Since the UK monetary authorities have not attempted to control the quantity of the monetary base but have rather fixed the rate of interest, supplying the quantity of monetary base demanded at that rate, the supplies of money and domestic earnings assets are modeled as decreasing functions of the money market rate of interest instead of the usual increasing functions of the monetary base. With this model the author analyzes the effects of a number of shocks which in chapter 8 are again examined in the context of his empirical model. Unfortunately, the author is rather unclear about the number of independent (equilibrium) equations and the number of unknowns (interest rates and the exchange rate) so the reader is left wondering how the author manages to determine (verbally and in figures) three variables from two independent equations.

The estimation of the empirical model is described in chapters 4 and 5, while chapter 6 describes the data sources. The equations are derived from nested CES-functions which together form a 'utility tree.' Overall, appropriate attention is paid to estimation problems and to representing expectations correctly. Expectational variables are the expected permanent income, expected inflation and the expected change in the exchange rate (proxied by the forward rate). The author does not explain why he does not include expected interest rates in the equations. Chapter 7 considers the model as a whole and its tracking ability. The model is completed by adding an equation which links the rate on government bonds to the exogenous Treasury bill rate of interest. This equation is derived from the term structure of interest rates but it remains unclear whether this is warranted in a model with a whole menu of assets, each with its own rate of return: why should not the lending and deposit rates have their own influence on the rate of government bonds? The exchange rate is determined by imposing equilibrium on the foreign exchange market: in fact, the forward premium, together with the other endogenous interest rates, results from imposing equilibrium on the whole system of financial markets. The actual exchange rate follows from the exchange rate expected for the next period and the forward premium. The tracking capability of the model is examined in several ways and although the results for the bank lending rate and especially the exchange rate are less than satisfactory the author concludes that the model gives a reasonable representation of the UK financial system during the relevant observation period.

In chapters 8 and 9 simulation experiments are reported. The simulations in chapter 8 deal with shocks to the domestic money market rate of interest, the uncovered foreign rate of interest and net overseas assets of the non-bank private sector under conditions of a pure float. As the author notes, imposition of a terminal condition for the exchange rate requires two decisions to be made 1) the actual condition itself and 2) the time horizon envisaged before the model returns to its equilibrium value. He decides to impose the exchange rate ruling at the start of the simulation period as the terminal condition and on the basis of an analytical exercise and some experiments he opts for an eight-quarter horizon. The results of the simulations conform with the theoretical analysis of chapter 3. They show jumps in the exchange rate and thereafter gradual adjustment to the terminal value: this involves 'overshooting' which means that the actual exchange rate moves beyond the rational expectation of the equilibrium rate as imposed by the terminal condition. However, one also notices that the model does not offer much interesting information: the most important interest rates are exogenous since they are determined by the monetary authorities and the 'equilibrium' exchange rate, *i.e.* the rate to which the actual exchange rate converges, is exogenous too. The author necessarily has to make somewhat arbitrary assumptions about the response of the equilibrium exchange rate to the various shocks.

Similar comments can be made with respect to chapter 9 where intervention by the monetary authorities in the foreign exchange markets is examined. Several types and rules of intervention are discussed and simulated with the model. Moreover, the author discusses the criteria for judging the efficacy of intervention and proposes the use of a loss function which the authorities are assumed to minimize. From a comparison of the various strategies and their costs, it appears that a pure float dominates other policy options such as sterilized or non-sterilized interventions and an interest rate option with the authorities adjusting the money market rate of interest to the foreign interest rate. However, the model does not include links between changes in the financial sector and

the subsequent reactions within the real sector. Consequently, real income and inflation are held constant throughout these simulations limiting the significance of the author's conclusions.

Overall, the study is interesting because it shows how the rational expectation framework can be built into an empirical monetary model. A clear account is given of the technical problems to be solved. However, the reader is left with a feeling that essential matters such as the determination of the 'equilibrium' exchange rate are left unsolved and that a more complete evaluation of intervention policies can only be made in the context of a larger model which also includes the real sector.

V.R. Okker

Terry Barker and William Peterson (eds.), *The Cambridge Multisectoral Dynamic Model of the British Economy,* Cambridge University Press, Cambridge, 1987. Pp. xxiv + 507. $ 54.50

'There can be no true or correct model by definition' (p. 13). This rather self-evident statement does not (and should not) encourage model builders to refrain from building models. As Barker points out, the purpose of model building is not to answer all conceivable questions, but to look for patterns of behaviour keeping a particular question in mind; a point agreed upon by most model builders. The particular contribution of the Cambridge Growth Project to modeling is the disaggregation of the British economy. This book provides an account of this contribution.

The book contains nineteen papers written by members of the Cambridge Growth Project team, describing the latest version of the Cambridge Multisectoral Dynamic Model (MDM6). Like its predecessors, MDM6 disaggregates the UK economy in 39 industries and commodities. Following an introductory chapter characterizing the present MDM, the book is divided into two parts. The first part (about 120 pages) covers the main aspects of econometric model building as they apply to MDM. The second part (about 330 pages) deals with the details of modeling in the different areas of the system.

The first part, starting with chapter 2, discusses the theory underlying the research and methods adopted. The methodological issue is disaggregation and that is what this chapter is about. Chapter 3 describes the accounting framework (the System of National Accounts) and the data base. In chapter 4 the structure of the model is presented focussing on the main relationships in the model. The model is of the Keynesian type and is very detailed owing to the degree of disaggregation. Chapter 4 is well-written and provides a useful tool in understanding the model without distracting one's attention from the main structure. A more detailed discussion of the model is postponed to the second part of the book. Chapter 5 deals with estimation and with hypothesis-testing methods (structural stability tests). For practical reasons (short-time series and size of the model) single-equation methods are adopted. The first part is completed with a discussion of the range of computer programs developed for large-scale multisectoral models.

The second part (chapters 7 to 19) describes individual economic sectors. Each chapter describes the relationships used, the parameter estimates and the results obtained. Chapters 7 to 10 relate to the real side of the economy: the determination of consumers' expenditure; fixed investment; stockbuilding; and foreign trade. Consumers'

expenditure is explained using the *top-down* approach, *i.e.*, aggregate consumption is explained first. In the second stage aggregate consumption is allocated between individual commodities. Fixed investment and stockbuilding is disaggregated by asset and industry (*bottum-up* approach). Exports are related to world demand and relative prices. Import shares are related to aggregate demand, relative prices and capacity utilisation. In the next six chapters various subjects are modeled, namely employment; the demand for energy; industrial prices (determined largely as a mark-up on costs) and profits; export and import prices; incomes policy and earnings; and social security benefits and personal income tax. Chapter 17 introduces a disaggregated model of the industrial and commercial subsector. The final two chapters treat aspects of the model which were not incorporated in earlier versions of MDM. In chapter 18 the financial side is modeled, albeit that monetary factors have a minor influence on the rest of the model. Interest rates are related to foreign interest rates and the exchange rate, that is, interest rates are determined by policy-response functions. Finally, chapter 19 models the sterling exchange rate which is determined mainly by inflation in the UK relative to inflation in the rest of the world and by differences in interest rates.

This book presents the state-of-the-art of multisectoral model building in the UK. The first part of the book, in particular chapter 4, in which the main structure of the model is discussed and in which the dynamic properties are presented, is worth reading by everyone interested in economic model building. The second part discusses MDM in more detail. Finally, it is a credit to the Cambridge Growth Project team to stick to their principle of analysing the UK economy through a consistent disaggregation of the economy.

Gerard H. Kuper

Richard T. Baillie and Patrick McMahon, *The Foreign Exchange Market: Theory and Econometric Evidence*, Cambridge University Press, Cambridge, *etc.*, 1989. Pp. 259. $ 44.50

The strong feedback between empirics and theory has established international finance as one of the prime areas of positive economics. Research quickly outdated the *Handbook of International Economics II.* While at the undergraduate level the book *Floating Exchange Rates* by MacDonald provides a reasonable text, the typical graduate course had to proceed by articles. Baillie and McMahon's book gives a good and up-to-date presentation of the field containing the core research results in a comprehensive and coherent way. The book is therefore extremely useful as a graduate text and reference manual for the researcher. It emphasizes the interaction between economics and econometrics from a technical point of view. The complementary text *International Money* by De Grauwe discusses the lessons and implications for exchange rate policy.

Nowadays, the typical graduate course quickly outlines some of the reduced form macro-oriented exchange rate models, demonstrates their low explanatory power for short-term movements, and then switches to discuss the issues in the tradition of finance whereby the use of advanced econometric techniques dominates. The former approach is contained in chapters 3 and 8, theory and empirics, while chapters 2, 4, 5, 6 and 7 follow the latter approach; *inter alia,* this seems to be the more natural sequencing of

chapters, also coinciding with the historical development. Chapter 2 nicely discusses the various forms of market efficiency and its limitations. Rational expectations are expediently treated in Chapter 3, with a useful solutions manual in the Appendix. Given the demise of the macro exchange-rate models, more may be learned from investigating the residual. The statistical analysis of the innovations in Chapter 4 is one of the best chapters of the book, discussing all the currently available techniques in a clear and straightforward manner. Discussion of the interest parity conditions is contained in chapters 2 and 6. Chapters 6 and 7 investigate forward market efficiency and the role of news. A lucid presentation of the testing methodology is provided.

At some points the text could be improved; here are some suggestions. A collection of all the stylized facts, like *e.g.* in Mussa's or Levich' articles, in one place would provide a useful benchmark for any work in the field. Also scattered over different chapters is the presentation of the forward market. A unified treatment would better bring across the message that rationality *cum* efficiency does not necessarily imply a zero premium. Moreover, an equilibrium analysis *à la* Kawai is preferable to the partial approach offered here. For example, within the framework of section 2.5 multiple equilibria can easily arise. A small slip is that the inequalities of page 57 are not necessarily strict. Equality may be obtained if investors have expectations over returns rather than levels, *c.f.* the discussion of equation 6.2.4. The discussion of currency substitution is not convincing as the equation on page 86 seems misspecified. In particular, the logarithmic version of uncovered interest rate parity condition 6.2.3 gives $Es_t + 1 - S_t = r_t - r^*_t$, which renders the specification meaningless. Note that one would expect this equality to hold, in particular as the elasticity of currency substitution gets large. Section 4.6 on the unconditional distribution is too rudimentary. For example, the *ad hoc* introduced Power Exponential distribution is unlikely to be a good candidate as it has thin tails like the normal, the higher kurtosis notwithstanding, whereas the fat tail property is an undisputed stylized fact. Given the non-stationarity of the levels, chapter 6 places too much weight on the level tests for efficiency; one could immediately move to presenting tests of equation 6.2.9. Lastly, I missed a treatment of the Peso problem. Given that still many currencies are in some way fixed to other currencies, the issue of process switching warrants discussion.

To conclude, the book gives the first clear and comprehensive account of the state-of-the-art in modelling foreign exchange rates. It is highly recommended to researchers and graduate students who are fascinated by the interaction between theory and innovative econometrics.

C.G. de Vries

Benjamin M. Friedman, *Day of Reckoning, The Economic Consequences of American Economic Policy under Reagan and After*, Random House, New York, 1988. Pp. 323. $ 19.95

Sometimes economists write a book for an audience of non-professional economists. The thesis of this book is that US economic policy as launched in the 1980s forms a serious break with policies as pursued in the past which may have serious consequences for US society. It is primarily fiscal policy which is responsible for the poor economic performance of the US: 'The new approach to American fiscal policy in the 1980s pro-

duced not just deficits, but large deficits: very large - and not just because of inflation but because they were genuinely big compared to what we produced and earned. And although they began when business was weak, they became larger even as the economy recovered. For decades, Americans had been committed to paying in full for what their government provided. But now that commitment had given way to a policy of never paying in full for our government under any circumstances at all' (p. 133).

Although deficits may stimulate economic activity when ample resources are unemployed, it will raise interest rates in competition with private demand for savings when the economy is no longer in a recession. The implied reduction of private investment has a negative impact on productivity growth, which was already quite low in the US. The higher interest rate also attracts foreign investors, which causes an overvalued dollar and hampers US exports. The mounting indebtedness sacrifices part of America's sovereignty. The necessary adjustments may lead to (additional) protectionist pressures, both in the US and abroad. A perhaps even more serious threat is a return to high rates of inflation.

It is interesting to note that Friedman is quite aware of existing criticism of budget deficits which are not adjusted for inflation: '...the budget systematically overstates costs by including all interest that the Treasury pays on its outstanding securities, while failing to allow for the shrinking real value of those securities due to inflation' (p. 88), but he still bases his entire analysis on unadjusted data. As is well kwown, the inflation-adjusted deficit figures are less frightening than the unadjusted figures. Friedman should have made clear why it is unadjusted figures that matter for his analysis.

According to Friedman, Reaganomics failed because it was based upon four premises which proved to be wrong. Firstly, lower tax rates did not affect incentives enough to raise tax revenues. Secondly, higher after-tax returns did also not stimulate private saving. A third 'mistake made by some of the new policy's advocates ... was to suppose that the very knowledge of the government's borrowing would itself spur additional saving. This idea rested on the principle that deficits do not preclude the need for taxes but merely defer them from the present into the future' (p. 255). Finally, business savings - that were supposed to be higher, due to more generous tax breaks - were not used for productive new investment. Companies have instead distributed much of their increased after-tax cash flows to shareholders by stock repurchases, leveraged buy-outs and other acquisitions. All these failures caused actual revenues not to meet the administration's projections, which yielded historically high deficits. (Government spending appears to be remarkably close to what Reagan requested.) What is needed now in the US is 'a rebalanced fiscal-monetary mix - with higher taxes, reduced government spending, and lower interest rates - ... in order to substitute capital formation for consumption and exports for imports' (p. 289). Let's hope that president Bush has read this book!

J. de Haan

Dirk Frantzen, *Groei en crisis in het na-oorlogse kapitalisme* (Growth and Crisis in Post-War Capitalism), Kluwer, Antwerpen, 1989. Pp. 235.

The book provides an interesting analysis of the phenomenal economic growth and its subsequent abatement in the industrial free-market economies. With Schumpeter's

long-wave theory always lurking in the background, the author presents a fine synthesis of Marxist and Keynesian thought enriched by recent ideas from the New Cambridge and French regulation schools. At the end of the book he indicates how, in his opinion, general prosperity can be revived.

Essentially Professor Frantzen's analysis suggests that the post-war technological boom produced a sharp rise in productivity and a sequence of investment opportunities. Their exploitation was sustained by rising wages and expanding social expenditure which prevented economic growth from grinding to an early halt for lack of effective demand. The ill effects of oligopolistic tendencies were counterbalanced by structural changes and the intervention drift resulting from the political engagement and participation in government of reformist labour parties. He relates the subsequent abatement in the rate of economic growth to the changes in income distribution between classes. He believes that in the early stages of the recession the working class was still politically powerful enough to make governments pursue expansive economic policies. At the end of 1975 these policies even engendered a relative economic revival. But this revival was not strong enough to be sustained. Demand and profit expectations remained too scanty to revitalise the required volume and type of investment. Such investment as materialised was mainly *process* and not *product* innovating. It increased the organic composition of capital and reduced profitability. By 1979 the crisis entered a new phase. Prolonged unemployment had emasculated the labour movement too much by the time of the second oil-shock to be able to resist monetarist inspired restrictive economic policies.

Professor Frantzen's proposed remedy follows from his analysis, namely a new technological revolution based on electronics and spreading along neo-Schumpeterian patterns. He is hoping for a new post-Fordian labour-consumption norm with an increasingly efficient provision of services and fresh flow of new and improved durable consumption goods. However, given the prevailing social power structure, he is wary of 'blind technological optimism.' He fears that without more labour-intensive production techniques, the new industrial elan may cause a rift between the well-remunerated employed and the unemployed 'poor.' He therefore links the success of a neo-Schumpeterian revival to labour following a strategy combining the defence of the old attained social achievements with vigorous efforts to obtain sufficient internal control in enterprises to influence the selection of the new production techniques. In addition, general policies must be elaborated on and pursued to encourage industrial investment, stimulate scientific progress, and direct and expand education with an eye to meeting the challenge of the future. These mainly Keynesian-inspired policies ought to be matched by well-coordinated budgetary stimuli and monetary measures. Professor Frantzen believes that all this will not only help the industrialised countries but fructify effective demand on a world scale. Finally, the supervision and control of certain financial institutions may also be desirable in order to direct credit selectively to support the required industrial policies.

Professor Frantzen's analysis is, of course, more sophisticated than this brief summary suggests. But several questions remain to be elucidated. What is the transformation mechanism? Why should we expect the still well-remunerated larger part of the working class to attain the required degree of consciousness and solidarity in the present cultural climate to effectuate the proposed conditions for economic, social and political revival? Why should the working class, which has been unable to prevent the rise of neo-liberalism since the late seventies, now be better able to reverse this process? How can the immediate needs of small and medium-size enterprises to profit from wage and tax

reductions be reconciled with long-run requirements for a steady expansion of effective demand, even if the macroeconomic role of the latter is fully recognised? Why should basic inventions be exogenous?

Some of these questions are studied by economic historians, by institutionalists and by Post-Keynesians, others by social economists. Their findings would have made an important addition to Professor Frantzen's very commendable book.

Y.S. Brenner

Ryuzo Sato and John A. Rizzo (eds.), *Unkept Promises, Unclear Consequences - U.S. Economic Policy and the Japanese Response,* Cambridge University Press, Cambridge, 1988. Pp. 200. $ 29.95

This is a collection of essays by seven leading economists in the areas of macroeconomics, international trade, and Japan-U.S. business and economic issues. It focuses on Japan-U.S. trade relations and trade imbalances.

The book is divided into three sections. In the first part B.E. Bosworth, H. Stein and R.E. Brinner deal with the relation between U.S. macroeconomic policy in the first half of the 1980s and the trade balance. P.A. Samuelson and L.C. Thurow focus on microeconomic causes of the trade imbalance. Their contributions show that macroeconomics and microeconomics can hardly be separated when dealing with this particular topic, but also that some room clearly exists for a different perspective. Finally, the editors included their analysis of the trade problem from the Japanese perspective which was also presented at the conference 'Beyond Trade Friction' (Tokyo, 1986).

It is not easy to give a fair judgement about books that deal with policy relevant topics. Attempts to predict and prescribe solutions to what seemed to be relevant questions at a certain point in time may easily appear outdated to readers that are blessed with the possession of knowledge *ex post.* This is especially so for the volume to be reviewed. Since no major disasters have appeared (yet), it would seem that most contributors are alarmists. The problems being complex and multidimensional, it should, moreover, not come as a surprise that the authors' opinions on causes and remedies are divided and that their predictions differ. Finally, most contributions appear to have been written at the end of 1985 and hence published with a lag of about three years. So the studies have been written before, *e.g.*, the reorientation of the Japanese economy materialized from export to domestic demand-driven growth that has been triggered by the substantial yen appreciation since the fall of 1985.

Still, the general analysis of this book seems to reflect our present understanding of the phenomena under discussion. It appears, *e.g.* from the recent 1990 *OECD Economic Survey* both of the United States and of Japan, that at present the fixed opinion among policy makers leans more towards the analysis which sees the trade imbalances as essentially macroeconomic phenomena, as does this book. Increasingly, the opinion seems to gain ground that it is indeed possible that differences in the rate of time preference between nations make external imbalances for a time optimal from a global welfare point of view. Judged by this standard the general tone of the book reflects, to a large extent, recent thinking on U.S.-Japanese trade imbalances.

Both Bosworth and Stein start with the question of why the trade imbalances arose in the first place. The foreign balance equals domestic output minus absorption. Thus the trade (im)balance is essentially a macroeconomic phenomenon. Hence they examine the U.S. domestic savings balance which, by definition, mirrors the balance on current account. Then the focus is naturally on the budget deficit and, consequently, economic policy is the scapegoat for the deficit. So Reaganomics, the ideas behind the U.S. 1981 economic recovery program, appears to have been left to hold the baby. Stein goes into the historical antecedents and sketches the 1981 supply-side experiment as the outcome of public dismay over inflation and resentment toward a rising tax burden. Bosworth argues that the Reagan economic policy has been seriously flawed in its ability to stimulate the economy while maintaining budget and trade balances. Also, the policy makers' closed-economy approach to the problems of the United States may have contributed to a relative neglect of the implications of supply-side economics for the U.S. trade position. Bosworth and Stein agree on the U.S. current account deficit being essentially an easily correctable outcome of ill-advised macro-policy.

Samuelson starts his clear and well-written analysis with a review of the Japanese success story and directs attention to the remarkable fact that Japan's post-1950 prosperity has owed nothing to military expenditures. Next he turns to the pure theory of international trade and demonstrates within the context of the basic Ricardian model of international trade that it is an oversimple dogma to argue that free trade *always* benefits the trade partners. On average, however, the import of goods produced more cheaply elsewhere improves the well-being of both trade partners. There is another, less theoretical, argument *pro* free trade. Samuelson urges Japan to fully open its markets in order to prevent allegations that Japan's closed markets are responsible for the bilateral trade imbalance. The large Japanese external surplus may provoke protectionist trade policies in the United States. This suggests that trade liberalization efforts need to be intensified. Hence, political analysis, both theoretical and practical, provides compelling arguments for free trade between Japan en the United States.

Next comes Thurow's apocalyptic vision on the trade imbalances. The trade deficit is a major crisis, which, even if it is reduced, will have pervasive, painful and long-lasting effects on the United States and its trading partners. The sheer absolute magnitude of the U.S. trade deficit implies that industrial capacity has been created in other countries for which the U.S. market seems to be the only viable outlet. Thurow argues that the fundamental problem is not so much macroeconomic policy but long-term microeconomic factors that lead to a loss in U.S. productivity and competitiveness. The external imbalance is especially alarming from a financial perspective. There is a point where the amount America must borrow to meet its obligations exceeds what the rest of the world is willing to lend. When lending stops, the dollar will fall and overshoot. Major adjustments will be required in the real industrial economy.

The key to the reduction of the foreign deficit lies in the macroeconomic policy settings both in the United States *and* abroad, since the U.S. deficit is mirrored by surpluses elsewhere. Hence Japan's policy may also be relevant for the problem at hand. Sato and Rizzo maintain that the U.S. trade deficit is mainly the responsibility of the United States. It is a consequence of the much higher growth rate in U.S. domestic demand rather than of Japanese efforts to raise exports. Also, the United States tends to import more than it can afford. Finally, the high dollar is a consequence of high U.S. interest rates due to the huge U.S. fiscal deficit. Concentrating on the Japanese economy, they note the contribution to the Japanese trade surplus of macroeconomic

factors, such as Japan's high savings rate and weak domestic demand, which reflect the high cost of housing and education relative to income in Japan. As far as cultural factors are involved, expansionary policies would be irrelevant. Technically, there is scope for structural government-induced change, especially since the fiscal stance of macroeconomic policy has been rather restrictive. Given current popular Japanese sentiment, however, it may be difficult to implement the appropriate policies. Sato and Rizzo argue that liberalizing trade barriers probably will not contribute significantly to a reduction of the trade surplus either. This appears to be essentially of a macroeconomic nature and microeconomic measures are hardly suited to dealing with them directly. Hence, Japan can only play a limited role in solving the U.S. trade problem. The trade deficit being a twin deficit, the cure of the disease is a reduction of the U.S. budget deficit.

Peter A.G. van Bergeijk

Rob van Tulder and Gerd Junne, *European Multinationals in Core Technologies,* John Wiley & Sons, Chisester, *etc.,* 1988. Pp. xv + 286. £ 28.50

The performance of glamorous high-technology industries engaged in global competition attracts a lot of attention both from policy makers and from the scientific world, especially from those engaged in the so-called new international economics and/or strategic trade policy. The academic literature on the subject mainly represents the North American point of view. Van Tulder and Junne offer a welcome contribution to the debate as they analyse and describe the problems and prospects of the European 'sun-rise' industries. Moreover, they offer a new perspective by choosing not to deal with industries, but with three specific core technologies: microelectronics, biotechnology and new materials.

Core technologies are applicable in many new products and processes in different industries and are supposed to contribute to a solution of the problems that characterized the stagnation in the 1970s and early 1980s as they enable firms to economize on labor, capital, energy and raw materials and have less hazerdous effects on the environment and provide for more flexibility in the production process. Developments in the three clusters of core technologies are closely linked, especially since advances in one cluster often are a precondition for progress in another. Evidently, core technologies are of a specific strategic value to companies as well as to countries. Companies have to become active in these fields, because the technology and system know-how that can be produced in these clusters are often inputs for their main activity. Consequently, many companies from different economic sectors, branches and countries enter the same fields. This yields the intensified competition which characterizes the process of firms - supported by national governments - diversifying into advanced technology fields.

In assessing the present international competitiveness of the European companies, Van Tulder and Junne start from their observation that European multinationals are in general more diversified in comparison with American and Japanese competitors. As a result both Research and Development expenditures and investments of European multinationals tend to be stretched over a broader range of sectors, thereby decreasing the probabilities to mobilize a 'critical mass' of resources in any given field. This com-

parative disadvantage, which at least partially explains why European companies have been less innovative in the 1970s, could be turned into an advantage as a larger degree of diversification allows them faster diffusion of new technologies across industrial sectors, even in those cases where they are not the innovator. Van Tulder and Junne, however, are pessimistic about the possibilities for the necessary transfer of technology, given Europe's rather rigid industrial organization and low labour mobility. Hence a change in priorities may only be brought about by means of government intervention in the European context. As most countries concentrate their support on more or less the same industries, duplication of Research and Development as well as investment is to be expected. This clearly implies a considerable waste of scarce resources and - from a European point of view - may even hinder economic integration if this configuration of national programmes leads to different standards and other non-tariff barriers. Moreover, in the early 1980s it became clear that the possibilities for a concentration of *national* efforts had been largely exhausted. Hence, the necessity and scope of European technology policy and cooperation among European companies come to the fore and are described extensively in the final chapter.

The effort to describe and analyse the pattern of European production of technology has to be applauded. Van Tulder and Junne deal with a subject that is (and probably will remain) an extremely relevant policy issue. Unfortunately, their study appears to be more concerned with vision than with facts. It deals rather with illustrative case stories concerning the behaviour of 41 multinationals with a European headquarter (mainly high-ranking companies in the well-known Fortune ranking), than with rigorous empirical or mathematical analysis. Van Tulder and Junne prefer counting cases where measurement in money would be more appropriate, *e.g.* where they assess the position of firms and institutions from different countries in the European technology programmes (pp. 229–231). Not all of the authors' hypotheses and claims are satisfactorily substantiated. Their thesis that European multinationals expand their activities in the field of core technologies, *e.g.*, rests on a questionnaire to which only 59% of their sample of 41 replied. More importantly, Van Tulder and Junne present their data in a way that does not allow the interested reader to assess the validity of their claims. The authors, *e.g.*, assert (pp. 63–66) that higher priority being paid to know-how by European multinationals is investigated by means of three indicators. However, one indicator (the R&D-profit ratio) is not shown at all and another (the R&D-capital expenditures ratio) has to be derived from two seperate tables that have different entries and currencies and do not report all the necessary relevant data. Another example is Table 7.5 which presents international cooperation agreements involving European multinationals in the 1980-86 period but does not include intra-European alliances under the EUREKA project, making a comparative analysis more or less impossible (p. 244).

In sum, the study by Van Tulder and Junne is a welcome addition to the literature on the subject of (European) production of technology and it contains a lot of descriptive material which may be of value to both researchers and policy makers. It appears, however, that 'extrapolations' of assumed trends, interpretations of data and non-tested hypotheses are used in a number of cases to support the view which Van Tulder and Junne hold about the activity of European multinationals in core technologies. This is not to say that their view is wrong, but rather that their analysis is not convincing and that a lot of questions remain to be solved by further research.

Peter A.G. van Bergeijk

John B. Shoven (ed.), *Government Policy towards Industry in the United States and Japan,* Cambridge University Press, Cambridge, *etc.*, 1988. Pp. 354. £ 30.00

This book contains eleven essays by American and Japanese economists. The titles of the eleven essays are:

1. The corporate cost of capital in Japan and the United States: a comparison.
2. The taxation of income from capital in Japan.
3. Corporate tax burden and tax incentives in Japan.
4. A closer look at savings rates in the United States and Japan.
5. The Japanese current-account surplus and fiscal policy in Japan and the United States.
6. Curing trade imbalance by international tax coordination.
7. Picking losers: public policy toward declining industries in Japan.
8. Corporate capital structure in the United States and Japan: financial intermediation and implications of financial deregulation.
9. The Japanese bureaucracy in economic administration: a rational regulator or pluralist agent?
10. Japan's energy policy during the 1970s.
11. Industry structure and government policies in the US and Japanese integrated-circuit industries.

I will not attempt to review all eleven essays separately. Instead I will offer a few comments on the book as a whole and then review some papers in more detail.

The title of the book *Government Policy towards Industry in the United States and Japan* suggests that most essays are concerned with issues of industrial policy. This, however, is not true. Five essays deal with tax matters, two with the corporate cost of capital and corporate capital structure and the remaining four with matters of industrial policy. In most essays the authors investigate a certain subject in order to compare the situation in Japan with the situation in the US. For instance, in the first essay on the corporate cost of capital, its authors, Ando and Auerbach, carefully compare the corporate cost of capital in Japan and the US. It is often thought that the corporate cost of capital in Japan is much lower than in the US and that this is the result of lower business taxation in Japan. Ando and Auerbach find some evidence of lower rates of return in Japan but rule out business taxation as a potential explanation. So what is the economic policy issue? I would say: business taxation yes, but personal income tax and capital gains tax, the government deficit, the savings rate and the current account surplus as well. This encompasses much more than just 'government policy towards industry.' The cover text says that the essays focus on 'economic policy issues that currently confront the government of the US and Japan.' This is of course a much broader description than 'government policy towards industry' and it is much closer to the truth.

I will now offer a few comments on those essays that deal with matters of industrial policy, *i.e.* essays 7, 9 10 and 11.

In essay 7, Peck, Levin and Goto describe Japan's public policy towards declining industries. Japan's first comprehensive attempt in this respect was a 1978 law entitled: 'Temporary measures for stabilization of specific depressed industries.' Under this law an industry can be designated by MITI as 'structurally depressed' if at least two thirds of the firms in that industry (measured both by number of firms and by market share) apply for designation. After an industry is designated, MITI tries to forge an industry-

wide consensus on a capacity-reduction goal. If MITI judges that an industry's capacity-reduction goal is inconsistent with the reductions planned by individual firms, it recommends to the industry the formation of a cartel for the purpose of reducing capacity. This permits members of the cartel to discuss capacity reductions and to agree on the allocation of such reductions across firms. Firms are not obliged to join such a cartel if MITI recommends that one needs to be formed. There appear to be many firms that stay outside these cartels. Yet, this procedure appears to have worked quite well, especially in a number of concentrated industries. In comparison with a policy of subsidization, as has been common in Western Europe, managing declining industries by forming cartels has many advantages. Subsidies tend to retard the exit of resources. Cartellization may do the same but to a lesser extent: consumers cannot be made to pay too much to support a declining industry, especially if there is import-competition. Taxpayers, however, have deeper pockets. Resources would have left the British coal industry much more quickly under a policy of cartellization than under the massive subsidies that have been provided.

In essay 9, Aoki sketches a fascinating picture of Japanese bureaucracy. Aoki sees an isomorphism between the mechanisms of decision-making and problem-solving in Japanese firms and Japanese bureaucracy. Both in firms and in bureaucracy there is emphasis on consensual coordination among departments and on problem-solving by use of on-the-spot knowledge. The essay by Aoki is an interesting contribution toward an economic theory of bureaucracies.

In essay 10, Mioriguchi discusses Japan's energy policy during the 1970's. Japan's rapid adjustment to rising energy prices is the result of two factors: an increase in the share of nuclear energy and a decline in energy input. The decline in energy input has been due to the introduction of micro-electronics technology (and thus smaller and more energy-efficient products) and to a change in output mix (less energy-intensive products such as aluminum and more knowledge-intensive products).

Essay 11 describes Japan's policy towards an emergent industry: integrated circuits. Japan's great success in this industry can be attributed to three factors. Firstly, most Japanese IC manufacturers are also major Japanese computer and telecommunication manufacturers; this greatly facilitates product development. Secondly, the Japanese government has favoured domestic computers and telecommunication industries and hence increased derived demand for IC. Thirdly, foreign direct investment in the IC industry was at first prohibited.

The four essays on Japan's industrial policy each focus on a striking element in Japan's economic success:

- its rapid redeployment of resources from declining industries;
- its success with emergent industries;
- its rapid adjustment to rising energy prices in the 1970s;
- the role of its bureaucracy.

There is no single answer that explains Japan's economic success. This book provides several insightful essays, of which each tries to explain one element. There is only one shortcoming: the eleven essays remain eleven separate essays. They overlap like roof tiles, but display no common thread. Perhaps that is too much to demand from a collection of essays.

S.W. Douma

Masahisa Fujita, *Urban Economic Theory, Land Use and City Size,* Cambridge University Press, Cambridge, *etc.,* 1989. Pp. IX + 366. $ 65.-

This book presents a unified, theoretical, microeconomic approach to urban land use and city size, dealing with both its positive (equilibrium) and normative (optimum) aspects. The core concept of the book, the *bid rent function,* goes back to Von Thünen (1826) and was extended to an urban context by Alonso (1964). It can be thought of as a mapping of a single indifference curve from the traditional commodity space into the urban space. Hence, each consumer has a whole set of bid rent curves. Since these functions are stated as pecuniary bids per unit of land, they are comparable among different land users and are well-suited to graphically analyse the locational choice of, *e.g.,* households. Peculiar to Fujita's approach is the systematic use of the often neglected companion concept, the bid-max *lot size function.* In monocentric cities, which are the topic of this book, moving out from the center the optimal lot size runs to infinity when the companion bid rent runs to zero. Chapter 2 relates these concepts to the relevant microeconomic theory (*i.e.* indirect utility functions, expenditure functions, and Marshallian and Hicksian demand functions), the mathematics of which is conveniently summarized in an appendix.

Furthermore, this chapter discloses several relationships between households' characteristics and their individual residential choices using a specific definition for the relative steepness of the bid rent function. If pecuniary transport costs are not negligible, time costs, explicitly dealt with, and the wage elasticity of lot size are less than unity, wage-poor households and wage-rich households with few dependents will tend to locate close to the city center. Further away and out towards the suburbs, middle-income households with large families and some commuters will be found. Asset-rich households with larger families and some commuters will locate even farther away. Each time, the residential location decision is the outcome of the trade-off between accessibility and space.

Assuming identical households, chapter 3 investigates the equilibrium land use pattern as determined through a competitive land market as well as through a competitive housing services market (the Muth model). The latter model explains not only the increasing population densities but also the increasing capital/land ratios when one moves closer to a city center in the USA. In the case of the competitive land market four situations are analyzed. Closed city models assume a given urban population level and endogenously determine the urban utility level, whereas open city models assume a given (national) utility level and through migration endogenously determine the population level. Furthermore, an absentee landownership variant is compared with a public landownership variant in which the city rents the land from rural landlords, subleases it to its highest bidding residents and equally divides the total differential land rent among all of them.

To demonstrate the existence and uniqueness of the equilibrium solutions, Fujita stands out by using the intuitively clear concept of *boundary rent curves* instead of standard but cumbersome differential calculus. These curves indicate the hypothetical market rent that has to be paid at the boundary if a given population is to be accommodated within that boundary. The boundary rent curve is also used to determine the outer limit of the city, where it cuts through the exogenously given agricultural bid rent curve. Furthermore, (outer and inner) boundary rent curves are used to determine the

locations of, and the changes in, the boundaries between the different types of households that are introduced in chapter 4.

Optimal land use patterns are defined in terms of the Herbert-Stevens model in which a surplus (mostly defined as total urban income minus transport cost, composite goods cost and opportunity land cost) is maximized, subject to a prespecified target utility level for all households. By means of the auxiliary concept of compensated market equilibrium, Fujita proves that the competitive equilibrium is efficient. Moreover, any efficient allocation with equal utility levels can be achieved through the competitive market if the appropriate level of income tax or subsidy is chosen. The same conclusion holds in the case of multiple household types, but additional assumptions are needed and the convoluted proofs had to be put in appendices.

Both chapter 3 and 4 conclude with several comparative static exercises, the most interesting of which relates to the effects of a separate exogenous income increase for a low income and a high income class of households, respectively. In the first case, the inner poor households' zone will expand outward, pushing the rich households' zone outward too and pushing their rents up at every location. Consequently, the poor households' equilibrium utility level increases, but the rich households' utility level decreases. In the latter case, the equilibrium utility levels of both income classes increase, because the rich class, demanding more space, moves outward and gives way to lower rents for the poor class.

Chapter 5 presents what might be called the *micro foundations* of urban macro economics. It establishes convex population cost and concave population supply functions, and introduces an aggregated urban production function. It then proceeds to deduce the equilibrium city size under the two open city models mentioned above. Natural resource and transportation cost advantages are introduced to explain differences in equilibrium city sizes. Optimal city sizes are arrived at under different institutional arrangements (*i.e.* competitive markets, profit maximizing developers and utility maximizing communities) to finance the fixed cost of city formation. Furthermore, the Henry George theorem or the golden rule of local public finance (*i.e.* the equality of fixed public cost and total differential rent at the optimal population size) is deduced for equilibrium systems of cities. Finally, the consequences of economies of scale in production are studied.

In the second part of the book various kinds of externalities are introduced. In chapter 6 local public goods are treated. If there are many cities with pure (public) city goods without spillovers, profit maximizing developers as well as utility maximizing communities behave as utility takers and aim to maximize the total differential land rent *minus* the cost of providing city goods. Competition among such developers and communities will lead to the efficient provision of city goods, *i.e.* the familiar Tiebout outcome not only holds for spaceless cities but also for spacious ones. An analogous conclusion is arrived at for pure neighborhood goods. When congestible city goods are present, Fujita presents an institutional set-up for a congestion tax in such a way that decentralized decision-making is not only efficient but also operational. Spillovers of neighborhood goods pose analytical difficulties, which are only dealt with in the case of linear cities.

Chapter 7 deals with negative externalities from interactions among households. Optimal allocation, *e.g.*, under the presence of crowding externalities, requires a congestion tax based on unobservable information. Several second-best policies are then discussed, such as density zoning through minimum lot-size regulations in the case of crowding. The outcomes appear to be quite sensitive to the type of landownership

regime. Comparable analyses are made in the case of racial externalities, where border and tipping models are incorporated, and in the case of traffic congestion, where the public/private land distribution and location taxes are discussed.

Chapter 8 returns to the urban aggregates and examines the roles of external (agglomeration) economies and product variety (*i.e.* monopolistic competition) in city formation. Both approaches lead to the same descriptive outcomes for urban aggregates such as total population, total net output and the urban wage rate. Their normative implications, however, are quite different. Fujita suggests that the producer services variety model may be reformulated to deal with consumer services variety as well as public good variety. Moreover, the various product variety models may well suggest explanations for several kinds of differences in city sizes.

As indicated above, Fujita's book shows the broad range of urban policy issues that may be covered from a unified microeconomic approach. However, high costs are involved. The mastery of its contents requires a mathematical fluency that will only be found in graduate schools with a strong tradition in quantitative economics. Traditionally, several of the results are also found through partial analyses, especially in the area of urban macroeconomics and the economics of systems of cities. The laborious derivation from land use theory is ingenious, but does not provide a comprehensive replacement for the standard urban economics textbook, which generally includes a richness of empirical description, something which is lacking in Fujita's book.

Scientifically, however, the present text is a major achievement. Consequently, everyone interested in the advancement of urban economics will be extremely interested in this volume as well as in the announced second volume that will deal with the extension of the land use and city size theory to a general equilibrium framework and to a dynamic framework.

Jan Oosterhaven

Wolfgang Balzer and Bert Hamminga (eds.), *Philosophy of Economics*, Kluwer Academic Publishers, Dordecht, 1989, Pp. 270. $ 69.—

After Donald Mc Closkey had convinced most people that if economics had a pretence of being a science, its practice only merited the title of Rhetoric, it is rather disconcerting to find that economics now also has a philosophy. Or, at least a number of philosophers and economists deem it scientific to search for one. This book is an account of the contributions to a follow-up conference held in Tilburg in 1987 on the abovementioned subject which were published in a special issue of *Erkenntnis*, An International Journal of Analytical Philosophy. The short introduction, which clearly aims at an audience which is already acquainted with the subject (and the first conference), gives very little guidance as to what the reader might expect to find. As far as a novice such as myself can tell, there appear to be two basic approaches. One is to try to rephrase the premises and conclusions of economic theory in order to investigate logical coherence, much like the syllogistic form of argument learned in school. The second approach is 'reconstruction' of theory in a 'structuralist' way. This seems to mean rewriting the implicit axiomatic structure of a theory in a more general, yet more compact, mathematical form, usually topology. In this review I shall try to give only a flavour of both approaches.

An example of the second approach is Janssen's essay, 'Classical and Keynesian Macroeconomics' which argues that the only difference between the structurally reconstructed Keynesian and neoclassical theory is in their respective representation of the labour market; if both theories claim to be equilibrium theories despite their divergent labour market 'structures,' this must result from a basic difference in the definition of equilibrium in the two theories. Again, to the novice, it is unclear why philosophical reconstruction was necessary to reach this result, for Keynes states very clearly in chapter 2 of the *General Theory* that this theory is formally identical with classical theory with the exception of a single axiom in the same sense that non-Euclidian geometry is formally identical with Euclidean geometry, save the axiom of parallels. What the philosophical reconstruction seems to ignore is that Keynes presumed that changing a single axiom made theoretical comparison of his theory with others just as impossible as it is to compare a Euclidean and a non-Euclidean world. It is also interesting to note that according to Warren Young's *Interpreting Mr. Keynes* (Polity Press, 1988), the basic theoretical structure that Janssen uses to represent both theories existed in classical analysis well before the Hicksian adaptation of it in Keynesian terms.

After this essay comes another by Janssen and Theo Kuipers, 'Stratification of General Equilibrium Theory: A Synthesis of Reconstruction' in which they attempt to mediate between conflicting structural reconstructions of general equilibrium theory. It is not clear how these papers (including an extension of his own earlier structuralist reconstruction of Marx by Werner Diederich) are anything but alternative methods of formulating economic propositions which economists have been practicing for decades without much advance on the basic theory! It is unclear why philosophy was necessary to discover this. In any event, Janssen and Kuipers strike a note also emitted by a number of other authors when they claim that they can mediate between alternative reconstructions only by making a distinction (they call it a 'stratification') 'between the individual and the collective level.' Indeed, one of the main themes of the papers using the first approach is the failure of economics to provide any meaningful analyses of the individual or to make any effective attempts to bridge the gap between individual behaviour and the evolution of micro-aggregates such as 'market' or industry demand and supply.

As an example of the alternative approach, Daniel Hausman's 'Arbitrage arguments' attempts to analyse the meaning of the equilibrium explanations used in rational expectations by noting the similarity to a proposition in population genetics which starts by postulating a deficiency of one or two sexes. If this leads to better mating prospects (because of excess supply of the other sex) then that sex will have more offspring. If there is a propensity for that sex to reproduce a higher proportion of its own sex, then this will eventually eliminate the deficiency and the sexes will always be balanced in the long run (I have taken some liberties with the language of the argument). In rational expectations, the story would start by postulating that there are firms which employ economists who use economic models as the basis for the firms' decisions. If their expectations are more accurate than other firms', and if this allows them to make higher profits, they will eventually come to dominate the market and the expectations of all firms will be based on the predictions of economic models. It should now be easy for the unemployed worker to convince himself that in the long run he does not exist.

Hausman notes that these equilibrium explanations 'are particularly powerful because so little depends on the precise initial conditions' and because they can avoid making statements about 'universal traits of human beings and concerning particular

causal paths'; everything depends on the premises. This is neatly shown in an example by suggesting that our willingness to accept the former and reject the latter argument depends on causal paths. We are willing to accept that the causal path of an economy is determined by the economists' models, but not that the paths of planets are moved by the astrologer. Thus, realism of the premises and the validity of causal paths do matter.

Rosenberg's essay asking 'Are generic predictions enough' also notes that Friedman set a hare running that has come round one too many times with his defence of unrealistic assumptions in abstract theorising. The point at issue really is predictability; if the unrealistic assumptions do not provide predictions, or testable predictions, they will be criticised. He argues that economics is unlikely to get beyond 'generic' – by which he means qualitative – predictions, which, if they are not specified in terms of time and magnitude, cannot be tested in any meaningful way.

Nelson, in an essay on average arguments, also shows that there is as yet no theory, nor any real attempt, to explain individual actions in what is one of the oldest parts of economics, demand theory: the microfoundations emperor has no clothes. The same turns out to be true for game theory, where Bicchieri shows that if players have the ability to make perfect predictions this will make it impossible to complete, or even engage in, simple games.

There are a number of other papers which cannot be discussed for lack of space. The book as a whole varies between restating the obvious and providing fresh insights into general equilibrium theory. If we consider philosophy as a discipline that teaches us things about the way we reason which we do not generally recognise, then this book certainly succeeds in indicating to economists aspects of implicit economic theorising that are not evident in the average discussion of economic theory and it should find a place in reading lists for courses in economic methodology.

J.A.Kregel

Hans Walter Lorenz, *Non-linear Dynamical Economics and Chaotic Motion,* Lecture Notes in Economics and Mathematical Systems, 334, Springer Verlag, Berlin, *etc.*, 1989. Pp 248. DM 59,–

The roots of differential and difference equations are to be found in physics, in particular in *mechanics.* In the first chapter of his book, Hans-Walter Lorenz carefully explains how in the 18th century physics developed as a linear science. When economists modeled their science on it, they also adopted this linear approach and that is the main road economics has gone so far.

After pioneering work by Poincaré, Birkhoff and, more recently, Smale in mathematics, non-linearities have been introduced by Volterra (1880) and Lotka (1925) in biology, by v.d. Pol (1927) in physics and by Goodwin (1947, 1951) in economics. In 1963 the great breakthrough came with the discovery of the Lorentz attractor. 'Strange attractors' and 'Chaos' have been with us since then. Let me demonstrate the nature of chaos by a simple example, introduced by Richard Day, in neoclassical growth that can be found in chapter 4 (pp. 119 *a.f.*) of the book I am reviewing here. Savings S_t are proportional to income Y_t. Savings are equal to investments I_t. The capital stock K_t exists for precisely one period. Population L_t is growing with a constant growth rate n. Finally, the production function is: $Y_t = F(K_t, L_t) = B\,(K_t/L_t)(L_t - K_t)$.

The assumptions are reduced to the following (non-linear) difference equation: $k_{t+1} = \mu k_t(1-k_t)$, where $\mu = (sB)/(1+n)$ and$= K_t/L_t$. When $0<\mu\leq 4$, $f_\mu(k_t) = \mu k_t(1-k_t)$ maps the interval [0,1] on $[0,(\mu/4)]$. The graph of f_μ is like the back of a dromedary (with one hump). The equilibria of the difference equation are the fixed points of f_μ (*i.e.* $f_\mu(k^*) = k^*$). For $0 < \mu \leq 1$ there is just one fixed point: $k^* = 0$. The fixed point $k^* = 0$ is stable and attracting. For $\mu > 1$, f_μ has two equilibria: $k^* = 0$ and $k^* = 1 - 1/\mu$. For $1 < \mu < 3$, $k^* = 0$ is unstable and $k^* = 1 - 1/\mu$ is stable and attracting. All $k \in [0,1]$ except $k=0$ and $k=1$ will eventually approach $k^* = 1 - 1/\mu$. We say the open interval (0,1) is the domain of attraction. When $\mu \geq 3$ the fixed point $k^* = 1 - 1/\mu$ becomes unstable. Let us now look at: $f^2_\mu(kt) = f_\mu(f_\mu(k_t)) = \mu^2 k_t(1-k_t)\,(1-\mu k_t\,(1-k_t))$. The graph of f^2_μ looks like a camel back (with two humps). For $1 < \mu < 3$, $f^2\mu$ has two fixed points: 0 and $1 - 1/\mu$, but for $\mu > 3$, $f^2\mu$ has also the fixed points: $k^*_\pm = (\mu+1)/2\mu \pm 1/2\mu\,\sqrt{(\mu+1)\,(\mu-3)}$. As f_μ maps k^*_+ on k^*_- (and *vice versa*) together they represent an orbit of period two. It turns out that for $3 < \mu < 1 + \sqrt{6}$ this orbit is attracting, the domain of attraction is (0,1) except $k = 1 - 1/\mu$, which is unstable for those values of μ. It can be shown that for $\mu > 3.5699\ldots$ (which is larger than $1 + \sqrt{6}$) there is an orbit of period three. It can be shown: whenever there is an orbit of period three for all natural numbers: n there is an orbit of period n, and at most, one of those orbits is stable. One might expect that the domain of attraction of this stable periodic orbit is the open interval (0,1) except for the points belonging to the unstable orbits, but this turns out to be wrong. There are points that neither belong to the domain of attraction of the stable orbit nor to the unstable orbits. As a consequence nothing can be predicted about the behaviour of such points. This is called: chaos. Moreover, neighbouring points may have a completely different behaviour. This is called sensitive dependence on the initial conditions. Note that this is a deterministic model, the unpredictability and unexpected behaviour does not come from stochastic shocks.

There is no doubt that chaos has been 'introduced' in this model by the choice of the production function. The mathematical model was known before and the production function was chosen to obtain this mathematical model. Ton Vorst, in his inaugural address (*Economie, onzekerheid en wiskunde,* Rotterdam, 1989), warns against this methodology. Motivations should come from economic assumptions, not from aiming at certain fashionable results. I guess everybody will agree with this, but I also think that, by lack of experiments in economics, models like the above one may be used as a kind of 'thought-experiment,' such that, when there are good motivations for non-linearities, one is prepared for what may happen. For everyone who is not a specialist in this kind of non-linearities, who has some knowledge of (linear) differential and difference equations and wants to be informed on this kind of theories, Lorentz' book is a good choice. It contains, in a descriptive way, all mathematical results and many economic applications. It is clearly and on the whole carefully written. Sometimes statements are incomplete or incorrect *e.g.* 'If a dynamical system possesses a first integral, then any initial point (except the equilibria) is located in a closed orbit.' (p. 53), but that will not disturb the ones who are not interested in applying the theory in his or her own research.

Dave Furth

John Denis Sargan, *Contributions to Econometrics*, Volumes 1 and 2, Edited with an introduction by Esfandiar Maasoumi, Cambridge University Press, Cambridge, New York, *etc.*, 1988. Pp. 304 (Vol.1.) £ 45.-. Pp. 296 (Vol.2). £ 45.-

In these two volumes 26 selected papers by Denis Sargan, Professor Emeritus of Econometrics at the London School of Economics and Political Science, have been collected. Of these papers six have not been published before, the others did appear in various journals (12 in Econometrica!) and other collections over the years 1955 through 1983. Six of the papers in Volume 2 are co-written by Ph.D. students of Sargan, who up to 1985 supervised no less than 35 Ph.D. theses! Apart from the awesome evidence embodied in his publications, his profound contributions to econometrics are also expressed in the foreword by T.W. Anderson and in the introductions to both volumes written by the editor. Maasoumi gives a retrospective account of the various topics studied by Sargan during his career and he also adds a brief biography, a list of publications and a list of Ph.D. theses supervised by him.

These two volumes are not the only tributes to Sargan on the occasion of his early retirement in 1984 from the LSE at the age of sixty. There is also the *Festschrift* edited by Hendry and Wallis (1984). From this book it is manifest how important Sargan has been - and still is - for the mainstream of research in modern econometrics. In view of the successes in econometrics of many of Sargan's students, his great influence must, for an important part, be rooted in his teaching at the LSE. Desai, see Sargan (1988), edited a book in which Sargan's lectures in the LSE course Advanced Econometric Theory, given in 1983-84 are recorded. This work more or less compensates for the fact that Sargan never wrote a textbook on econometrics. More details on Sargan's career and on his achievements and motivation can be found in the ET interview by P.C.B. Phillips (1985). All the testimonials referred to above reveal Sargan's originality, competence and modesty; and in some places they also refer to his terse style and his legendary inimitable presentations in classroom teaching, at conference meetings, and in the drafts of his discussion papers. Above all, however, they expound Sargan's extraordinary significance for econometrics and, like the two volumes under review here, show his huge research output.[1]

Apart from some papers in economic theory published in the early 1950s Sargan worked in various areas of theoretical and empirical econometrics, and he made many fundamental contributions. In the late fifties he wrote about estimation theory in simultaneous and dynamic models, and in 1964 his seminal 'Colston Paper' on econometric methodology appeared with an empirical study of wage-price inflation. This paper contains the rudiments of many characteristics of present-day time series econometrics, such as: estimation and testing of models with higher-order autoregressive dynamics in both system and stochastic disturbance, selection of non-nested models, and error-correction mechanisms. In those days, the LSE became the centre of great activity in econometrics. For more than twenty years Sargan himself con-

1 In his foreword, Anderson classifies Sargan's publication list as being rather small. To put things in a proper perspective, it is illuminating to consider Sargan's record over the five years preceeding his retirement, and to calculate his publication index in the same way as is done each year for Dutch economists, see De Schuite (1985). His score turns out to be 859, and hence he outperformed all his Dutch colleagues mentioned in the lists published in 1985 by a large margin.

tinued to explore various aspects of theoretical and empirical inference in dynamic economic systems. Since the late seventies he (unwillingly?) is the godfather of what may be called the 'British school of time series econometrics,' see Gilbert (1989).

Volume 1, which only contains papers with Sargan as the sole author, starts with three *Econometrica* papers (1955-57) in economic theory; two on the period of production, and one on the distribution of wealth. Then there are four (1958, 1959, 1961, 1964) fundamental papers in econometric theory, *viz.* on estimation by IV, 2SLS, LIML, FIML and 3SLS in dynamic models with serially correlated errors. The consistency is demonstrated, the efficiency is discussed, and asymptotic tests and confidence intervals are arrived at. Paper number eight in the first volume is the famous Colston paper; it is followed by a more recent (1980) empirical study of the same phenomenon: wage-price inflation. The other five papers in the first volume are again theoretical and highly technical. There is his *Econometrica* (1980) paper on common factor analysis, where he develops a test strategy to discriminate between system dynamics and serial correlation in the disturbances. Paper eleven is the first contribution not published before, and it provides interesting corrections and extensions to tests for misspecification in dynamic and simultaneous equations already proposed in rudimentary form in the Colston paper. A number of asymptotic tests for various forms of misspecification in single equations and in full systems are presented. Many of them appear to be asymptotically equivalent; the finite sample behaviour of these tests remain to be cleared up. The final three papers in this volume address the fundamental identification problem in the context of dynamic and non-linear systems. The first one is a revision of an unpublished paper dating back to 1975; the second is his Presidential Address to the Econometric Society, given in 1980; the final one was published before in 1983.

Volume 2 contains seven papers on finite sample distribution theory in econometrics, and five papers on miscellaneous topics in dynamic econometric modelling. In line with his work on inference in dynamic simultaneous models, Sargan has done extensive research in obtaining better approximations to the actual distribution of estimators and test statistics than the usual asymptotic approximations. Maasoumi presents a long list of specific small sample problems that have been fruitfully addressed by Sargan and, while discussing Sargan's particular contributions, he, in fact, gives a concise historical overview of the developments in this area of econometrics since the late 40s. The collection of seven papers ranges from Nagar, Edgeworth, and Gram-Charlier type approximations to the distribution of relevant statistics in various models, and to other highly sophisticated practical and analytical methods. He also worked successfully on the use of Monte Carlo techniques to estimate moments and to establish distribution functions in finite samples, both for the usual asymptotic and for the various expansion techniques, and he paid special attention to the validity of the expansions and to the existence of moments. Two of the seven papers on finite sample theory have been co-written (by W.M. Mikhail and Y.K. Tse, respectively), and four have not been published before. One may safely assume that these latter papers are examples which 'might not have seen the light of day if the editor had not pried them loose,' as Anderson explains in his foreword when describing Sargan's typical way of conducting research. The remaining five miscellaneous papers in the second volume have all been published before. All but one are co-written; the one-man enterprise dates back to 1974 and considers the asymptotic bias when a continuous time stochastic model is approximated by a discrete model. Another paper from 1974 (with E.G. Drettakis) is on missing data in autoregressive models. Then there is a paper (with A. Espasa), published in 1977, on

spectral estimation of simultaneous dynamic systems. The remaining two are much more recent (with A. Bhargava, 1983); they are on unit roots in MA(1) disturbances of regression models and on estimation of dynamic models from panel data when only a short-time period is covered.

These two volumes do not contain the complete collected works by J. Denis Sargan (after all: he is still active!) but even from the restrictive selection made by the editor they reflect that Sargan studied almost every aspect of modelling and inference in dynamic econometric systems. The editor is highly commendable for this anthology and for the particular selection he made, *i.e.* just a few early papers on economic theory, the full set of early papers on estimation theory, the Colston paper plus some of its off-springs, then a fair coverage of identification, followed by a great deal of prominence for small sample theory, and finally some miscellanies. Although the majority of the papers collected by Maasoumi were already available, the publication of the present assemblage is most welcome in my opinion, especially because it stimulated the appearance in print of a few more of Sargan's pioneering papers and also of some important corrections of and additions to his earlier output. These books celebrate Sargan's significance in its most efficient and unbiased form, *viz.* through his work.

J.F. Kiviet

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V.P. Goldberg (ed.), *Readings in the Economics of Contract Law,* Cambridge University Press, Cambridge, 1989. Pp. XII + 252. $ 44.50

The economic theory of exchange rarely deals with contracts or contract law, because economists usually assume that a legal framework exists that guarantees property rights, freedom of contract and the viability of markets. In a competitive market there is no need for a separate body of law governing contractual relations. The breach of a contract generates no loss, since other agents are always willing to trade the same commodities on identical terms. The economics of contractual relations recognizes that in situations where the exchange of obligations and performance is not simultaneous there is a need for some enforcement mechanism. The purpose of contract law is to help people achieve their private purposes through the enforcement of promises. Contract law eases the coordination of the activities of the contracting parties through encouraging mutually beneficial allocation of risk and efficient investment in precaution and reliance.

The book under review presents a collection of papers on the economics of contracts and contract law. It embodies a compilation of 32 (non-technical) articles published before in outstanding journals like the *American Economic Review,* the *Journal of Legal Studies* and many different specialized law journals. One third of the articles is by the editor of the book. The other authors include George A. Akerlof, William Bishop, Robert Cooter, Charles J. Goetz, Mark V. Pauly and Richard A. Posner. The primary topic of the book is commercial transactions between firms. Consumer transactions are only touched upon. There is a bias towards the facilitative approach which implies that contract law should strive for efficiency. The question then is: If contracting parties want to do *X*, how can contract law be designed to enable them to do so? The central problem is to devise a system that both avoids breaches of contracts that are worth performing and avoids performances of contracts that are not worth the cost.

The articles are grouped together into nine different parts, each of which is preceded by a short introduction and is concluded with a few pages of 'questions and notes.' Parts I and II provide a general background. Part I discusses basic concepts like relational exchange, transaction costs, adverse selection, moral hazard and rent seeking. Akerlof generalizes the concept of adverse selection to any situation in which an individual has knowledge about his own quality, while whomever he is dealing with only knows about the characteristics of the average member of the group. Part II 'contract law and the least cost avoider' introduces the analysis of contract law. The famous (tort) case of Boomer v. Atlantic Cement is discussed to underscore the similarity between contract and tort problems. Part III deals with money damages resulting from contract breach, which are commonly classified as expectation, reliance, and restitution damages. Part IV contains only one article which is about the so-called 'lost-volume seller problem.' This deals with the question: If a buyer breaches a purchase contract for a manufactured item and the dealer subsequently resells the product at the same price, has the dealer suffered any damage, and if so, should he be compensated for it? Part V considers the specific performance the victim of a breach can obtain when the subject matter of the contract is 'unique.' The merits of two alternative, analytically similar damage measures (the cost of completion versus diminution of value) are also analysed. Part VI is concerned with the exercise of 'power' within a contractual relationship and the use of penalties to influence behavior. Posner regards the refusal of common law to enforce penalty clauses in contracts as an unexplained puzzle in the economic theory of the common law, because it apparently promotes inefficiency. Part VII considers warranties and disclaimers in standard form contracts. Warranties can assign the task of controlling future costs to the party in the best position to contain them. The incidence of various warranty exclusions can at least in part be seen as a way of coping with the adverse selection problem. By charging a price for a warranty, the producer possibly discourages the risk-lovers from buying the product. This could be an efficiency explanation for the considerable variation in warranty terms across product lines. The papers in Part VIII are concerned with the following problem: After parties enter into a contractual relation conditions may change. One party can have tremendous advantages to maintain flexibility to adjust the contract in the light of the changed circumstances. At the same time there are opportunities for the other party to take advantage of the other party's vulnerability and to insist that an existing contract be modified in his favor. Finally, part IX deals with the doctrines of impossibility, frustration, impracticability and mutual mistake which can make courts decide to excuse performance. The last selection discusses the reasons why parties might want to include

price adjustment mechanisms in long-term contracts and some of the techniques that are available.

The book gives a well-balanced compilation of leading articles in the field of the economics of contractual relations. The additional text by the editor makes it easy to follow the main line of reasoning and analysis. The questions and notes to each part are very helpful and make the book suited for advanced courses in law and economics. Knowledge of basic contract concepts and economics is a prerequisite. Readers from the civil code countries of Western Europe should be aware that the emphasis in the book is on legal questions arising under the common law, as in most law and economics literature.

Cees Sterks

R.W. Holzhauer, R. Teijl e.a., *Inleiding rechtseconomie,* Gouda Quint, Arnhem, 1989. Pp. 345.

Waar bemoeien economen zich niet mee? Een vraag die op verschillende manieren gelezen kan worden en alleen al daarom verschillend kan worden beantwoord. Tot voor kort kon gezegd worden: met het recht en met veel wat daarmee samenhangt. De 'neo-klassieke economen' hanteren wel als centrale begrippen 'markt', 'ruil', *etcetera,* maar wat er op markten gebeurt, transacties, overdrachten, blijft vaak buiten beeld. Dat in een maatschappij de 'parcellering' van economische goederen (mede) mogelijk is dank zij een rechtsstelsel, is ook iets waar economen vaak nogal gemakkelijk aan voorbij gingen (en voorbijgaan). Natuurlijk bestonden en bestaan er uitzonderingen, maar de hoofdstroom is hoogstwaarschijnlijk nog steeds enigszins blind voor de institutionele facetten van het economisch 'gebeuren': de economie functioneert binnen het kader van een bepaalde gegeven orde, die zelf geen voorwerp van analyse is.

Dat de economische rationaliteit ook losgelaten kan worden op 'vreemde' verschijnselen zoals misdaad en straf, of nog ruimer op maatschappelijke verschijnselen als het rechtsstelsel zelf of op morele systemen, is betrekkelijk nieuw, althans in Nederland. Maar nu wordt de vaart er dan ook ingezet en het hier te bespreken boek claimt 'het eerste' te zijn binnen het Nederlandse taalgebied. Dat is minder juist, want 'Recht en economie' van J.J.M. Theeuwes en anderen was er al eerder; Holzhauer *c.s.* verwijzen trouwens zelf naar Theeuwes' boek (pag. 219, noot 27). Geen primeur derhalve, maar wel de moeite waard.

Ik schets eerst de inhoud. Het boek begint met een opwekkend voorwoord van Ejan Mackaay – zelf ook zeer actief op dit nieuwe gebied van onderzoek van de economische wetenschap (zie o.a. zijn overzichtsartikel in *RM. Themis,* 1988/9, pp. 411 e.v.) – waarin hij wel erg 'sweeping' stelt dat recht en economie van elkaar afhangen, maar 'op de lange duur worden rechtsstructuren gekozen en behouden als hun economische gevolgen gunstig worden beoordeeld' (p.V), een uitspraak die mijns inziens toch enigszins op een economisch-imperialistisch standpunt is gebaseerd; de instrumententas die de rechtseconomie levert – aan economen en juristen – levert geen laatste beslisapparaat. Mackaay schrijft dat ook (p. VII), maar houdt zich niet geheel consequent aan deze afspraak. En ditzelfde geldt voor een aantal schrijvers, die bijdragen geleverd hebben aan het boek. Voortdurend wordt gesteld – ik parafraseer – : 'wij geven instrumenten, maar over het gebruik moeten de beleidsmakers beslissen', terwijl kort daarna toch inhoudelijke voorstellen of uitspraken worden gedaan.

Het boek bestaat uit drie delen. De hoofdstukken 1 t/m 3 (Deel I van het boek) bevatten de geschiedenis van de rechtseconomie, de centrale benodigde economische begrippen en de centrale rechtseconomische begrippen als eigendomsrechten *etcetera.* In Deel II van het boek komen Rechtsgebieden aan bod; daarbij valt op dat - heel klassiek - het vermogensrecht een centrale plaats is toebedeeld; de micro-analyse krijgt daardoor in het boek meer nadruk dan de macro-analyse. In deel III komen 'economie, recht en moraal' aan de orde en wordt een handleiding aangereikt voor een economische analyse van een juridisch probleem. De slotconclusie vooropstellend lijkt mij deze inleiding in de economische wetenschap een zinvoller tekst dan de - zoals tot nu toe vaak gebruikte - eenvoudige algemene inleidingen tot de economische wetenschap.

De auteurs schrikken niet terug voor harde uitspraken, soms kan ik deze - niet op basis van empirisch onderzoek, maar op basis van het feit dat empirisch onderzoek zo goed als geheel ontbreekt, maar er wel indicaties voor de juistheid bestaan - van harte onderschrijven. Op p. XII wordt als globale hypothese gesteld dat 'adequate kennis inzake efficiëntie en effectiviteit van regelgeving ontbreekt'. Een uitspraak die voor juristen - op welk niveau ook werkend, dus zowel praktijk- als theorie-juristen - schokkend zou kunnen zijn, maar het in de praktijk niet is!

Wat opvalt is dat de schrijvers de klassieke definitie van het rechtswetenschappelijk bezig zijn overnemen en dus kiezen voor 'rechtsgeleerdheid' in plaats van 'rechtswetenschap'. Het onderscheid tussen bezig zijn met de economie en economisch bezig zijn wordt ten aanzien van de economische wetenschap wel keurig gemaakt, de juristen zijn echter niet de mensen die *over* het recht spreken, maar *recht* spreken, activiteiten 'kanaliseren' (pag. 3). Opmerkelijk is dat de schrijvers van mening zijn dat voor de rechtseconomie bijzondere uitgangspunten gelden; genoemd worden: abstractieniveau, het methodologisch individualisme, het perspectief *ex ante* en het vraagstuk van de waardevrije wetenschapsbeoefening. Het laatste onderwerp is een geheel vreemde eend in de bijt, want het is van algemeen-methodologische aard. Dit geldt in meerdere of mindere mate trouwens ook voor de andere genoemde onderwerpen. Naar mijn inzicht kan bij de stelling dat de (rechts)economie zich op een standpunt *ex ante* stelt (pag. 9) een vraagteken worden gezet. De onderscheiding *ex ante/ex post* - uit Zweden overgewaaid - betekent niet dat economen uitsluitend geïnteresseerd zijn in grootheden *ex ante*; de verdeling van bijvoorbeeld schade over dader en slachtofer *ex post* is voor economische analyse van belang, omdat deze verdeling van invloed kan zijn op gedrag *ex ante.* De periode-analyse in de economie is op deze *feed-back* gebaseerd. Dat dit onderscheid in directe relatie staat tot morele en juridische aspecten - zoals door de schrijvers wordt gesteld - is onjuist.

Terecht wordt gesteld dat rechtseconomen in soorten voorkomen: de beschrijvende en de voorschrijvende soort (plus mengvormen); de schrijvers stellen zich op een positief (= niet-normatief) standpunt (pag. 14). Maar, zoals al is aangekondigd, geheel consequent zijn de schrijvers niet: op p. 24 wordt gesteld dat prikkel-beïnvloeding van gedrag (door middel van bijvoorbeeld subsidies of heffingen) tot het 'economische model van overheidssturing' zou behoren. Beïnvloeding door middel van normen dus niet? is dan de voor de hand liggende vraag, die moeilijk positief beantwoord kan worden, want ook niet-naleving van normen kan voordeel opleveren. Ten onrechte wordt derhalve gesuggereerd dat het ene juridische instrument economischer is dan het andere. Op dezelfde pagina wordt het strikte methodologisch individualistische standpunt (genoemd op p. 8) alweer verlaten door de stelling dat bij het calculerend gedrag 'rechtspersonen zich sterker rationeel handelend (lijken) te manifesteren dan natuurlijke personen'.

Soms is de terminologie ook wat slordig. Op pagina 43 wordt gepreludeerd op de invloed van pressiegroepen op de overheid ("public interest" en "capture theory" worden later in het boek aan de orde gesteld, p. 244 e.v.), maar op pagina 68 wordt de 'creatie van een onpartijdige instantie *in casu* de staat' ter handhaving van eigendomsrechten noodzakelijk geacht; een iets strakkere redactionele zeef zou nuttig zijn geweest. Dan zou ook het hiervoor reeds genoemde enigszins tweeslachtige karakter van het boek, positief/normatief, iets minder zijn geweest. Als voorbeeld neem ik Hoofdstuk 4 Contractenrecht (p. 87 e.v.). Gesteld wordt dat het 'geen verbazing zal wekken dat ondernemingen zich (vanuit economisch standpunt bezien) "correct" gedragen, zij het onbewust of impliciet. Zulks kan door de concurrentieverhoudingen worden verklaard: ondernemingen die niet rendabel zijn slagen er niet (meer) in om kapitaal aan te trekken van concurrerende vragers en verdwijnen uiteindelijk' (p. 90); hoe ook geïnterpreteerd kan deze zin niet anders dan verbazing wekken. Met behulp van dezelfde redenering wordt ook voorspeld dat regels van het contractenrecht in het algemeen efficiënt zullen zijn.

Ook komt in dit hoofdstuk weer de merkwaardige opvatting naar voren dat economen niet zo geïnteresseerd zijn in het verleden en juristen juist weer wel! Recht is meer dan hetgeen rechters doen en het probleem van rechtsvinding omvat meer dan rechterlijke rechtsvinding; rechtsvindingsvragen worden wel zeer versimpeld als gesteld wordt dat 'in de rechtsvinding het nu juist een omstreden kwestie is of een rechter beleid mag voeren' (p. 91). Het beschrijven, verklaren en voorspellen van door regels beïnvloed gedrag is niet eenvoudig, economische reductie geeft slechts schijnoplossingen. De stelling van de schrijvers, dat de vraag, of de rechter beleid voert, kan worden geherformuleerd tot de vraag, of de rechter in feite economisch analyseert of niet, berust op uitsluitend economisch-imperialistische neigingen. Dat inefficiënte rechtsregels niet zullen werken is eveneens een uitspraak - als 'conclusie' opgenomen (p. 93) - die het formele gelijk van de analyserende rechtseconoom te boven gaat en dus gekarakteriseerd moet worden als een normatieve, d.w.z. een beleidsuitspraak.

Rechtseconomen - als zij tenminste zuiver in de positieve leer zijn - kunnen geen uitspraak doen over de vraag of een partij zich uit (vergevorderde) onderhandelingen mag terugtrekken; zij kunnen aangeven wat de economische gevolgen zijn van het zich al of niet mogen terugtrekken. Op pagina 98 wordt een andere opvatting verdedigd en wordt voorts de betrokken jurisprudentie weinig gelukkig weergegeven.

Het zogenaamde 'onrechtmatige-daadsrecht' wordt heel bijzonder geïntroduceerd. Gesteld wordt dat dit regels geeft voor die gevallen waarin het voor potentiële daders en slachtoffers te duur is daarvoor een contractuele regeling te treffen (pag. 119). Dat is maar een deel van de verklaring, want het bijzondere van het onrechtmatige-daadsrecht is niet zelden dat het om gevallen gaat waaromtrent vooraf geen overeenkomst kan of mag worden gesloten! Het onrechtmatige-daadsrecht vult het contractenrecht niet aan: het kan beter worden geïnterpreteerd als een zelfstandig onderdeel van het vermogensrecht.

Het bestek van deze bespreking laat niet toe alle hoofdstukken van het boek gedetailleerd te bespreken. Ten aanzien van de iets filosofisch getinte slothoofdstukken beperk ik mij tot de opmerking dat deze te veel scheuten Posner (de vader van de rechtseconomie) en te weinig van anderen bevatten. De eindindruk is echter positief; deze inleiding rechtseconomie geeft juristen de mogelijkheid recht ook eens te zien als een schaars goed en dat zal zeker wat opleveren.

J.Th. Degenkamp

Jan-Benedict E.M. Steenkamp, *Product Quality: An Investigation into the Concept and How It is Perceived by Consumers*, Van Gorcum, Assen/Maastricht, 1988. Pp. XII + 276. Dfl. 59,50

The book provides an extensive exposition of product quality, one of the key competition variables of current marketing strategy in Europe and the United States. Although the search for quality has become one of the most important consumer trends, this is one of the first monographs on this topic in the marketing literature.

The work is divided into three major parts. In the first part the literature on product quality is reviewed from different perspectives to arrive at a model to describe the consumers' quality perception process, which is empirically tested in the second part. The third part deals with the price-perceived quality trade-off and the relationship between price and product quality in the marketplace.

In the survey of the literature, the concept of product quality is considered from four different perspectives. The metaphysical approach concentrates on essential quality, which is considered to be an elusive concept. The production management approach is mainly concerned with standardization of manufacturing procedures, quality control, and their cost. The economic approach to product quality is more thoroughly reviewed. The role of quality as a competitive weapon is discussed, and the models used in the economic literature are evaluated. Next, the economic theory on consumer search for quality is reviewed, and the validity of price and advertising expenditures as quality indicators investigated. Models in this area, assuming either perfectly or imperfectly informed consumers, are extensively discussed. These three approaches to the concept of quality have in common that they consider quality as an objective property inherent to the product. The perceived quality approach treats quality as a subjective concept dependent on the perceptions and needs of the individual consumer. In this monograph emphasis is on the latter approach. It is described how consumers need cues to form quality perceptions. A meta-analysis of the studies dealing with the effects of cues as imperfect indicators of quality identifies the cues that may influence perceived quality. Consumer-perceived quality risks, resulting from uncertainty in the evaluation of quality cues, are discussed together with risk reduction strategies employed.

Finally, relations between the four approaches to quality are discussed. From a review of published models on quality perception, Steenkamp develops a model that integrates concepts from information processing, social and cognitive psychology, and economics. The model is founded within the perceived quality approach and distinctively treats quality cues and quality attributes. Consumers use cues, ascertained prior to consumption, to form perceptions of (unobservable) quality attributes on which overall quality judgements are based.

The proposed model of the quality perception process, the core of the work, is empirically tested for two meat products. Real samples, produced by a meat firm on the basis of specified sets of quality cues, were used in the study among about 500 consumers.

The basic proposition of the model – quality attributes are intervening variables between quality cues and perceived quality judgement – is supported by the empirical study. Experience attributes, the outcomes of which can be assessed at short notice, were as a whole more important in the formation of perceived quality than credence attributes, although this did not hold for every pair of those attributes. Intrinsic cues were more important than extrinsic cues. The model was shown to enhance the understan-

ding of the formation of quality perceptions and highlights the influence of consumer variables such as quality consciousness and perceived quality risk.

In the last section of the book attention is paid to the role of quality in consumer decision-making, and more specifically to the trade-off between perceived quality and price, in two studies employing the correlation and the information integration approach, respectively. The positive effect of quality and the negative effect of price were found to be integrated in an additional way in the formation of purchase intention and perceived quality was found to be by far the most important. As in the formation of quality perceptions, hypotheses on the effects of consumer characteristics were not unequivocally supported by the data, except for the role of quality consciousness.

The last part of the book has received some attention in the Dutch media. It investigates the relationship of price and quality in the marketplace, using data published in the 'Consumentengids' (Consumers Magazine) of over 6000 brands over a 10-year period. For the majority of products a positive correlation was found. In general the relationship was weak, but it was stronger for durables than for non-durables. It was concluded that a consumer strategy to evaluate quality on the basis of price is in general suboptimal.

The extensive treatment of the concept and the development of the quality perception model make the book valuable for economics and marketing scholars. Moreover, the development of a model that is testable in practice, that highlights the role of quality cues and consumer characteristics such as quality consciousness and perceived quality risk (for which a measurement methodology is provided), make the model useful for commercial marketing studies. It may be an aid towards developing a marketing strategy based on quality and quality guidance.

M. Wedel

H.H. de Haan, *Alternatives in Industrial Development, Sugarcane Processing in India,* Indo-Dutch Studies on Development Alternatives-1, Sage Publications, New Delhi/Newbury Park/London, 1988. Pp. 177. £ 22.50

Case studies analysing the economic performance of a particular industry are a welcome change from the abundance of general appraisals of industrial growth in developing countries. This study on the viability of different techniques of sugar processing in the Indian economy puts the general case of the adverse effects of restrictive industrial policies on industrial efficiency in India more convincingly than some other, more superficial, studies which are based on general production theories.

A recent book by Little, Mazumdar and Page on small-scale enterprises (which also refers to an earlier version of this study) showed that the support of small-scale industries in India led to the co-existence of traditional techniques and large-scale modern operations in various cases. The sugar industry is a particularly good example: it consists of as many as three different production processes. The traditional production of *gur,* which is an important cheap foodstuff for poor sections of the population, accounts for 45 per cent of the total Indian sugar cane crop. At the other end of the spectrum, the large-scale sugar mills have a capacity to absorb another 30 to 35 per cent of

the cane crop. The evaluation of the third, semi-modern technique is the central element of De Haan's study: the *khandsari sugar* industry; its modern variant, the *open pan sulphation method* (OPS), has received special blessing from the Indian policy makers, which has given rise to widespread debate over the years.

Unfortunately, the book does not start off in a very promising way. The first chapter bears the ambitious title 'Technological Progress and Equity.' It is hard to believe that such a subject can be properly dealt with in just over twenty pages, and this is proved by De Haan's exposition. The chapter is very diffuse, and consists of many loose ends on complicated topics such as the labour and capital intensity of production, technical and allocative (in)efficient techniques, and the (un)desirability of small-scale industrialisation.

The tide turns in the second chapter. It contains a clear and informative description of the various techniques and developments in the sugar-cane processing industry in India. It points at the two critical stages in the production process, which explain the technical superiority of sugar mills: the crushing of the sugar cane and the evaporation of the cane juice into massecuite. Nevertheless, the OPS technique could flourish because it was exempted from the government's discriminatory policies against the sugar mills. Mills have to pay minimum target prices for the cane, and have to deliver a fixed proportion of their production as 'levy sugar' to the government at 'fair' – *i.e.* lower – prices.

Chapters 3 and 4 provide details of visits to 67 *khandsari* units, using the OPS process, and 54 *gur* and *non-sulphur khandsari* units in Western Uttar Pradesh in the early 1980s. Information was collected on many subjects, including output, prices, and the size of the units in terms of employees and capital stock (the number of crushers, juice boiling pans, *etc.*). Labour arrangements and the background of the entrepreneurs are analysed as well. On p. 34 De Haan claims that the main conclusions of the survey of the sugar industry in Western Uttar Pradesh also hold for the rest of India. This is not convincing given the vast size of this country and what we know about the different organization of industrial labour in various parts of the country. It might have been helpful if the author had expanded a little more on the other areas in India than he actually did in approximately 8 pages (pp. 46–53). Particularly the experiences with the cooperative mills in Maharashtra could have provided additional insight.

Chapters 5 to 7 describe the results of a cost-benefit analysis of the three techniques for typical establishment sizes. De Haan analyses their relative performance on the basis of both the existing dual price system for levy sugar and free sugar, and on the basis of a hypothetical 'free' sugar system. The conclusions are devastating concerning the viability of the OPS process: the 'net present value' of the average OPS factory does not come anywhere near that of the average sugar mill, neither at economic prices – *i.e.* prices reflecting the real scarcities of outputs and inputs – nor at social prices – which take aspects of income distribution into account.

An important reason for the support of OPS industries has been the desire to increase the sugar-cane processing capacity rapidly. De Haan acknowledges that this object has been attained and that the capacity in the sugar mill sector is now large enough to absorb further increases in sugar cane. Another reason to support small-scale techniques in manufacturing relates to its employment-generating aspect. De Haan criticises previous estimates of the number of man-days required per ton of sugar cane crushed, which were far too high for the OPS sector. He therefore questions whether the just slightly higher generation of employment in OPS justifies its lower efficiency: 'We consider short-term

protection of the small-scale cane processing sectors reasonable (to offset an absolute decrease in employment from the expansion of sugar mills, BvA), but further expansion should be discouraged' (p. 163).

In summary, this study is carried out in a careful and innovative way, and can be recommended to anyone interested in the specific characteristics of industrial growth and policy in India.

Bart van Ark

P.E. Visser, *Overlegeconomie* (The Corporatist Economy), Van Gorcum, Assen/Maastricht, 1989. Pp. x + 166. Dfl. 29,50

The subject of this book is an economy where interest groups play an important role in the centralized decision-making process. Such an economy is sometimes referred to as a 'bargaining' economy or 'corporatist' economy. I will use the latter term here. This book aims to improve our insight into the working of the corporatist economy. The author focusses in particular on the question whether – as Olson has argued – interest groups form an obstacle in achieving economic growth and full employment. I will briefly summarize Visser's argument and I will then make some critical comments.

Following an introduction by Albeda, the author sets out to test two key 'scientific hypotheses.' The first is Olson's hypothesis that there is an inverse relationship between the number of individuals with a common interest and the extent to which this common interest is achieved. The second hypothesis is that the wage formation process in a corporatist economy can be characterized as a Prisioner's Dilemma. The author tests the validity of Olson's hypothesis within the context of a corporatist economy. After a thorough analysis, it is concluded that the first hypothesis holds. *Ceteris paribus,* small groups in a corporatist economy are more successful than large groups in promoting their interests. Subsequently, Visser looks into every single step of the argument that the wage formation process in a corporatist economy can be characterized as a Prisoner's Dilemma. This argument has been frequently used in the seventies by Dutch economists propagating an incomes policy. When the author has completed his 'surgical' analysis, we are left with a few nasty doubts on the validity of this hypothesis. Together with the 'stylized fact' that The Netherlands has shown voluntary wage restraint in the first half of the eighties (where the Prisoner's Dilemma implies this to be impossible), these doubts lead Visser to search for other 'games' which are more in accordance with the empirical world. He finds a satisfying explanation for the existence of voluntary wage restraint in the Assurance Game introduced by Sen. In this game, universal wage restraint is the top priority of individuals. Visser then reports on the results of his own empirical research. He has developed a specific method to derive rank orders of individual preferences from interviews. The results from these interviews falsify the Prisoner's Dilemma hypothesis for The Netherlands in the period 1982-1985. Visser, instead, suggests that a cooperative model like Sen's Assurance Game is more appropriate for the Dutch situation in this period. This model requires coordination, but in principle enables a corporatist economy to achieve macroeconomic goals by voluntary action. According to the author, however, it remains necessary to investigate regularly whether the rank orders of individual preferences have changed over time. Economies can shift from one game to another.

Before I turn to a few critical comments, I want to say that Visser has written an interesting book in a logical and lucid style. For this he deserves praise. Furthermore, I wholeheartedly agree with his rejection of the Prisoner's Dilemma hypothesis for the wage formation process in The Netherlands. I fail, however, to be completely convinced by Visser's argument. Firstly, it surprised me that where the author is very accurate in clearly defining his concepts, he does not clarify the key notion of 'wage moderation.' Visser takes the reduction in real disposable wages in The Netherlands in the early eighties as empirical evidence against the Prisoner's Dilemma hypothesis. I fail to see why, for there can be no absolute measure for wage moderation. Wage behaviour should be assessed *relative* to, *inter alia,* excess supply in the labour market. In other words, I see no reason why the Prisoner's Dilemma could not have prevented either a similar decline of real disposable wage in the years *before* 1982 (when unemployment was already rising rapidly) or a *larger* decline in real disposable wages in the period 1982-1985. The point here is that Visser provides no proof of a timely and satisfactory degree of voluntary wage moderation in the light of the prevailing labour market situation. If anything, it seems that The Netherlands has shown a lack of short-run wage flexibility leading to a substantial amount of classical unemployment.[1] Secondly, I have some doubts on the strength of Visser's results of empirical research. Around 600 persons were interviewed of which only around 250 turned out to be working (!). How reliable are their answers compared to their real-life behaviour? Visser mentions the possible gap between the two, but we are left with questions about the potential consequences.

My final criticism is of a different order. I am afraid that the title suggests more (at least to me) than in fact is offered. In a book on the 'corporatist economy' one expects a treatment of the relation between different degrees of corporatism and macroeconomic performance. This interesting branch of research tries to place OECD countries on a scale of corporatism (one might be surprised to find The Netherlands somewhere in the middle) and compare their macroeconomic performances over a certain period of time.[2] Another topic one would expect in a book like this is the theory of labour union behaviour, insider/outsider theory *etc.* – all very relevant in explaining wage and employment behaviour in corporatist economies. In short, I believe this book is predominantly about the Prisoner's Dilemma hypothesis. This is only a criticism to the extent that I don't think this hypothesis (applied to wage formation) has received much attention *outside* The Netherlands. I hope Visser will reallocate his analytical skills in the direction of some of the internationally debated areas of the study of corporatist economies.

N. van Hulst

T.J.J.B. Wolters, *Onderhandeling en bemiddeling. Een studie op het terrein van de arbeidsverhoudingen,* Dissertatie, Amsterdam, 1989. 240 blz. *f* 42,50

Nederlandse studies van interventiemechanismen in de arbeidsverhoudingen zijn

1 See summary of *Report on Labour Market Flexibility and Unemployment in The Netherlands,* Committee of Economic Experts of The Netherlands Social and Economic Council, The Hague, 1988.

2 See L. Calmfors and J. Driffill, 'Centralisation of Wage Bargaining and Macroeconomic Performance,' *Economic Policy,* No. 6, April 1988.

schaars. Ongetwijfeld heeft dit te maken met het feit dat, zeker ten opzichte van het buitenland, de naoorlogse verhoudingen tussen werkgevers en werknemers lange tijd door harmonie werden gekenmerkt. Pas in de jaren zeventig - als de polarisatie tussen de partijen toeneemt - neemt het conflictgehalte zodanig toe dat soms derden nodig zijn om tot oplossingen te geraken. Het is de verdienste van Wolters dit - in belang toenemende - aspect van de studie van arbeidsverhoudingen zowel in theoretische als in praktische zin tot onderwerp van zijn dissertatie te hebben gekozen. Theoretisch streeft hij naar een zogenoemde normatieve bemiddelingstheorie. Ter voorbereiding daarop wijdt hij de nodige aandacht aan benaderingen van onderhandelingen waarbinnen bemiddeling een oplossende functie kan hebben. Praktisch krijgt het samengestelde bemiddelingsmodel relevantie door toepassing ervan op twee onderzoekingen van een concrete casus van onderhandeling en bemiddeling.

Na een schets van de context van de Nederlandse arbeidsverhoudingen bespreekt Wolters een reeks auteurs die ieder op eigen wijze onderhandelen over arbeidsvoorwaarden belichten en oorzaken voor impasses onderscheiden. Een en ander mondt uit in een driedeling van onderhandelen. In de aanloopfase wordt intern het eisenpakket geformuleerd, de positie op langere termijn bepaald en een pressie- of overtuigingsstrategie gekozen; in de integratiefase wordt informatie uitgewisseld tussen de partijen over wederzijdse wensen en aanspraken en inventariseert men zo mogelijk uitruilmogelijkheden die de contractmogelijkheden vergroten. In de contractfase tenslotte wordt gewerkt naar overeenstemming, eerst om een overlappende bargainingzone te ontwikkelen en vervolgens om convergentie op één punt te bereiken. In deze fase komen machtsdruk en tactische manoeuvres het sterkst tot hun recht. Alles overziende rubriceert Wolters onderhandelingsimpasses die tot bemiddeling kunnen nopen, in onvolledige informatie en onjuiste verwachtingen, in psychologische factoren (verslechterde verhoudingen, stress bij onderhandelaars) en in overwegingen op langere termijn (verhouding tot de achterban of tot de tegenpartij). Vervolgens gaat de auteur in op bemiddeling. De Nederlandse voorzieningen worden besproken en het begrip wordt nader bepaald, aan de hand van inzichten van auteurs. Terecht trekt Wolters de conclusie dat de verschillende theoretische aanzetten een gebrekkige samenhang vertonen en qua gebruikte begrippen niet op elkaar aansluiten. Het eigen bemiddelingsmodel wordt dan vorm gegeven langs twee bemiddelingsfuncties: de communicatieve en de inhoudelijke bemiddelingsfuncties. De communicatieve bemiddeling is voorwaardenscheppend om tot inhoudelijke overeenstemming te komen. Daarbij zijn aan de orde het doorbreken van strategische interactie, het herstellen van de geloofwaardigheid tussen partijen, het bevorderen van gezamenlijke probleemoplossing en het aandragen van meer contextuele informatie voor partijen. De inhoudelijke bemiddeling richt zich op het verlaten van eerdere stellingnames (retractie), het stuwen naar overeenstemming (convergentie) en het sluiten van een overeenkomst (accordering).

De toepasbaarheid van zijn model gaat de auteur tenslotte na door het onderhandelingsproces en het conflict rond de CAO voor het beroepsgoederenvervoer in 1983 en het conflict rondom de luchtverkeersleiders in 1985 in zijn categorisering te beschrijven. Zeer gedetailleerd worden met veel kennis van zaken in beide gevallen de posities der partijen en de conflictoplossingen beschreven. Aan het eind van zijn boek doet de auteur enige voorstellen met betrekking tot bemiddeling. Bemiddeling moet vrijwillig worden geaccepteerd. Het opdringen ervan en openbaarmaking van de conclusies van de bemiddelaar zijn in strijd met vrijwilligheid. Toch kan het nuttig zijn derden te laten onderzoeken of bemiddeling zinvol is, omdat bemiddeling op voorstel van één der partijen

als gezichtsverlies kan worden uitgelegd en daardoor ten onrechte achterwege blijft. Wolters pleit daarom voor consulenten, mogelijk bij de Stichting van de Arbeid ondergebracht, die aftasten of bemiddeling in concrete impasses van betekenis kan zijn. Bij deze suggestie rijst de vraag of de instelling van consulenten niet te zwaar is ter voorbereiding op - het door Wolters zelf benadrukte vrijwillige en informele karakter van - bemiddeling.

Interessant is zijn voorstel om voor de collectieve sector een afzonderlijke bemiddelingsvoorziening naast de bestaande advies- en arbitragecommissie (AAC) in het leven te roepen. Bemiddeling door de AAC (behoudens in het geval dat alle partijen de adviesaanvraag ondersteunen) acht hij ongewenst omdat het een te formeel en te tribunaalachtig karakter zou krijgen en - ingeval bemiddeling volgt op een advies van de commissie - daar moeilijk inhoudelijk los van kan worden gemaakt. Hier zit inderdaad een bepaalde spanning, hoewel niet moet worden vergeten dat voor iedere activiteit van de commissie een ander driemanschap (er is geen vrouw bij betrokken!) optreedt.

Het proefschrift biedt een goed overzicht van bestaande theoretische aanzetten op het gebied van onderhandelen en bemiddelen. In praktische zin geeft het ook systematische informatie welke stappen kunnen worden gezet om vastgelopen onderhandelingen weer vlot te trekken.

Het is jammer dat Wolters bemiddeling uitsluitend als vervolg ziet op stagnerende onderhandelingen tussen erkende onderhandelingspartners, werkgevers(organisaties) enerzijds en vakbonden anderzijds, omdat bemiddeling in de naoorlogse jaren in Nederland het meeste geschiedt door de vakbond bij spontane conflicten tussen werknemers en werkgevers. Te verwachten is dat met deze verbreding ook het gepresenteerde bemiddelingsmodel wijziging zal behoeven. Voorts rijst de vraag wat de betekenis van de twee cases in de studie is. De verschillen zijn zo groot dat een vergelijking op overeenkomsten en verschillen niet doenlijk is; het geringe aantal is onvoldoende om conclusies te trekken over de toepasbaarheid van het model. Ware het niet beter geweest om meer bemiddelingsgevallen (en dan uitsluitend in de marktsector waar tenslotte 'echt' wordt onderhandeld) op hoofdpunten te vergelijken, mede ter toetsing van het model?

W. van Voorden

P. Keizer (ed.), *Probleemgestuurd onderwijs in de economische wetenschap* (Problem Controlled Education in Economics), Van Gorcum, Assen, 1989. Pp. 139. Dfl. 28,-

Education can be defined as a process in which knowledge and skills are transferred. In an educational system such processes are organized. Differences in the organization of the production systems of these primary processes are relatively small. These differences can be explained by such variables as: the level and the nature of the knowledge and/or skills that have to be transferred, the age and the number of students. The effectiveness of these production processes seen as a process of learning by students depends heavily on the way the cognitive constraints of students are handled. This factor plays an important role in a problem-controlled process (pcp) of organizing the primary process of education. Taking account of cognitive constraints of students can result in programmes that, compared to the standard programme have less distinction in parts or fields and more control on the learning process of students through more feedback processes.

The new university of Limburg at Maastricht has as one of its main attributes (trade marks) problem-controlled education. The economics department of the university started education in economics as a pcp in 1984. *Probleemgestuurd Onderwijs in de Economische Wetenschap* is a report of a conference held in 1987. Staff members of the new department discussed their first experiences with pcp in economic education. As empirical results were not yet available the main themes of the conference were of a conceptual nature. Three themes can be distinguished. Firstly chapters 2, 5, 6 and 7 deal with the background and contents of the programme in economics. These chapters are a good survey of the philosophy behind pcp and the arguments for the construction of the programme. Especially for those interested in educational programmes in economics I can recommend reading these chapters. The possibility of constructing different production processes demands making a choice. However, to make a choice the alternatives must be compared. This demands a way of describing the choice problem that makes comparisons possible. The second theme, chapter 8, deals with a number of aspects of defining educational production processes as an economic choice problem. Production processes demand some kind of organization to control the primary process. The third theme, chapters 3 and 4, discusses a number of aspects on that issue. I was disappointed with the treatment of the last two themes. Chapters 4, 5 and 8 are of a general nature and do not discuss the main topic, *viz.* the differences in organization and control between production systems with or without pcp. This issue is relevant because choosing a problem-controlled production process in education demands a different input of production factors as a result of a different production technology. It is generally assumed that these other inputs are more expensive so the effectiveness of the process should compensate for this disadvantage. However, the discussion generally stops at this statement. We ought to know quite a lot more about differences in production technology and the resulting differences in production and cost functions. The challenge to start this discussion at a conceptual level was not acknowledged.

A. Bosman