BOOK REVIEWS

Reinhard Selten, *Game Theory and Economic Behaviour: Selected Essays* (Vol. I and II), Edward Elgar Publishing, Cheltenham, 1999. 912 p, GBP 130 (ISBN 1 85898 872 1)

This two-volume selection of essays offers an impressive overview of Selten's contributions to the field of game theory and economic behavior. There is no overlap between the articles in these volumes and an earlier collection of essays. Throughout his career, the 1994 Nobel Prize Laureate in Economic Sciences has pursued work in both normative and descriptive game theory as well as in experiments. While normative game theory builds models of strategic interaction under full rationality, it does not bother much with actual human behavior. In contrast, the explicit task of descriptive game theory is to explain actual human behavior. Selten's contributions to the latter have been strongly informed by his own early laboratory experiments, starting already in the fifties. The experimental work confronts the normative models with the bounded rationality of human behavior.

Volume I starts with a nice introduction written by Andreas Ortmann containing brief sketches of the selected articles. Most of the selected papers have been published in the last decade and are easily accessible, but others are less well-known. The volumes contain for instance translations of Selten's PhD thesis (1961) and the 1959 paper 'Ein Oligopolexperiment,' written together with his supervisor Heinz Sauermann, and the paper 'The Scenario Bundle Method.' This paper reports on the results of a small conference held in 1976. In this conference an attempt was made to construct a simple game-theoretic model on international conflicts, namely potential conflicts in the Persian Gulf. The first scenario in this paper had Iraq tempted to invade Kuwait. The paper was never formally published because the experts invited to the conference judged an Iranian revolution as extremely impropable, an event that happened shortly after the conference. Much later, in 1990 Iraq really did invade Kuwait.

Part I of Volume One consists of a long essay, 'In Search of a Better Understanding of Economic Behaviour,' published in 1993. In this essay Professor Selten describes his work through 1992 and provides a thematic discussion of his research, starting with the beginnings of experimental economics in Germany and his first attempt in 1962 to develop a general theory of boundedly rational decision-making based on adaptation of aspiration levels. Recently, the idea of aspiration levels is used in evolutionary models for explaining human behavior. Amongst other themes discussed in this essay I would like to mention the themes of bargaining under incomplete information, perfectness, equilibrium selection, evolutionary game theory, and bounds of rationality. Nowadays, the pioneering work of Selten on these themes has many followers. Volume Two starts with the autobiographical outline that Professor Selten gave before his Nobel Prize lecture. This sketch contains many personal remarks and acknowledges his key collaborators and students over time.

The other 24 articles in the two volumes, are splitted up in 7 parts. Parts II-IV in Volume One under the headings Axiomatic Characterizations, Learning, and Political and Social Interaction and parts I-IV in Volume Two under the headings Theories of Oligopolistic Competition, Oligopoly Experiments, Bilateral Bargaining, and Coalition Bargaining. The first part includes his Nobel Prize lecture and two classical papers with Marschak (1977, 1978) in the German tradition of conjectural oligopoly theory.

Having together such a variety of articles it becomes very clear that bounded rationality is one of the central themes in Selten's work. Unexpectedly for instance, this issue is also implicitly present in the paper 'An Axiomatic Approach to Consumer Welfare.' In this paper with Ayal Winter a function is constructed to measure welfare gains from price changes by requiring a set of axioms, but the authors avoid '.. to proceed from the highly dubious assumption of utility maximization ...' The limited rationality of human behavior is further addressed in almost all papers reporting on experimental results. In part I of Volume One we read: 'The problem of bounded rationality has occupied my mind much more than one would think if one looks at the moderate success of my efforts in this direction.' Despite these words his numerous experimental results have contributed very much to the increasing interest amongst economists in this issue. The limited rationality of human behavior observed in many experiments has convinced Selten for the need of a descriptive theory instead of a rational theory. We find an example of such a theory already in the above mentioned 1959 paper with Heinz Sauermann. This article not only reports on the pioneer phase of laboratory experiments to observe human behavior, but also classifies the strategies chosen by decision makers in a Cournot oligopoly with three firms into eleven essential motive groups with 'good by experience' the most frequently chosen motive, showing the failure of normative theory to describe observed behavior. Two other nice examples of descriptive theories can be found in the recent paper 'Duopoly Strategies Programmed by Experienced Players' (Econometrica (1997)), with Michael Mitzkewitz and Gerald Uhlich, and the paper 'Bargaining Experiments with Incomplete Information,' which appeared in 1978 in the bundle 'Bargaining Behavoir' edited by Sauermann. The former paper reports on an experiment performed in 1987 in which each participant, after a number of training rounds to get experienced, had to write a strategy program for a 20-period asymmetric Cournot duopoly supergame in a tournament setting with the programs of the other participants. In contrast to the theory of finite games, no expectations were formed and nothing was optimized, but most subjects tried to achieve cooperation by a 'measure for measure' policy. The authors described the programs by 13 typical characteristics and constructed a 'measure of typicity' with a strong positive correlation between the typicity and the success of the program. The 1978 paper reports on an experiment performed in 1969 at Berkeley together with Austin Hoggatt and several of his research assistents. The experiments were computerized and took place in a laboratory built up by Hoggatt in a time when computers were still very primitive. In this experiment each subject in a session with 5 others played a bargaining game once against each of the others. In each game the two players had to agree in a finite number of bargaining rounds on the division of 20 units. If agreement was reached, the payoff to a player was given by the outcome of the agreement minus the costs of a player, being either 9 or 0 and randomly assigned to each player in each game. A player was only informed about his own costs, but did not observe the costs of his opponent. When no agreement was reached, both players received nothing. From the deviations between the normative theory and the experimental data the authors concluded that theoretically based robots (computer programs) naturally lack behavioral plausibility. From the experimental observations the authors then constructed a behavioral robot passing the 'Turing' test, saying that a robot is successful when the frequency of detection by another robot or human player is no greater than chance. This 30-year-old research is maybe one of the highlights of Selten's work and gives a very nice illustration of his quest for descriptive theories.

The volumes also contain some very nice papers on normative theory. Here, I would only like to mention his contributions on axiomatic characterizations in part II of Volume One and, of course, the contributions on the well-known equilibrium selection theory, developed in close cooperation with John C. Harsanyi. The application of this selection theory is nicely illustrated in the papers 'Equilibrium Point Selection in a Bargaining Situation with Opportunity Costs' (1983, with Ulrike Leopold) and 'Original or Fake, a Bargaining Game with Incomplete Information' (1991, with Werner Güth). In 'An Axiomatic Theory of a Risk Dominance Measure for Bipolar Games with Linear Incentives' (1995) a measure of risk dominance is characterized by 11 axioms. This measure played a central role in an alternative approach to the Harsanyi-Senten equilibrium selection theory.

The two volumes nicely illuminate the variety of the pathbreaking work of Professor Selten in the fields of game theory and experimental economics. About his work he writes in section 20 of part I in Volume One:

> 'In the past I have often worked in obscure areas far away from the mainstream. This is partly due to a spirit of opposition which makes me favourably inclined towards radical departures from commonly held views and partly to an inability to be quick enough to compete successfully on the hot topics of the day. I am slow, I have to try early.'

Doing so, he has opened many new ways to be explored in the new millennium.

Gerard van der Laan

Louis Phlips (ed), *Applied Industrial Economics*, Cambridge University Press, Cambridge, 1998. 443 p, GBP 55 (USD 85) (ISBN 0 521 62054 6)

This book is a reader for graduate and advanced undergraduate students in economics and business, presenting seminal research published in industrial economics in the last decade. The 1990s was the first decade after the game-theoretic revolution swept the field of industrial organization, in which the first 'new' empirical studies appeared and in which important changes took place in antitrust and merger policy in the US and Europe. The book takes stock of these developments and introduces the reader to the new tools and ideas.

The book opens with a 30-page introduction in which the author explains the logic of his choice and provides a common framework for the contributions. The remainder is divided into four parts that are devoted to the following issues: (i) how to explain the observed market structure (i.e., number of firms, concentration ratio, etc.) and how to relate this to the size of the market? (ii) how to explain the pricing strategies observed in oligopolistic markets and what are the outcomes resulting from such strategies? (iii) how can competition policy deal with collusive behavior and abuse of a dominant position? and (iv) how can competition policy be complemented by merger control so as to prevent monopolization or dominant positions being obtained?

Part 1 opens with the introductory chapter from John Sutton's *Sunk Cost and Market Structure*, a book that was published in 1991. This is a very appropriate starting point as it clearly demonstrates how the game-theoretic approach differs from the traditional structure-conduct-performance paradigm associated with Bain, as well as what the empirical difficulties are in taking the new theory to the data. Sutton's two-stage approach shows that there is a two-way relation between structure and conduct. Not only do the long-run structure decisions determine short-run pricing policies; since firms are forward-looking, the expected intensity of competition in turn influences the decisions on structure. An important distinction is whether sunk costs are exogenous or endogenous (i.e., subject to strategic choice, like marketing). In the former case, concentration will decrease with market size, but in the latter case not necessarily: the number of firms may be bounded as the endogenous sunk cost may be increased. The student here immediately gets the important message that it would be wrong to expect a monotonic relation between concentration and competition, or between competition and welfare, or between intensity of competition and entry. By having Schmalensee's review of Sutton's book as the second chapter, Phlips also confronts the student directly with an attitude that is at the same time sympathetic and critical, forcing the student to take such a critical attitude as well.

The remaining three chapters in part 1 deal with expanding and declining industries and focus around work of Pankaj Ghemawat. The theoretical questions addressed are: if demand increases (decreases), which firm will expand (shut down) capacity first: a large firm or a small one? The questions are addressed by using auction-like models and the answer is seen to depend on whether capacity is lumpy or not. An empirical paper testing these theories naturally closes part 1.

Part 2 contains seven chapters, three theoretical, three empirical and one experimental. Questions addressed are the following: do price announcements (practices that we see, among other things, in the Dutch retail gasoline market) lead to higher prices? Is geographic price discrimination evidence of lack of competition? Do clauses in which firms offer to match lower prices of competitors (a policy followed by, for example, the Dutch Kijkshop) lead to higher or lower prices? Can vertical restraints (such as resale price maintenance) serve to facilitate collusion among producers? How to explain the price discrimination in the European car market: are price differences caused by cost differences, or do firms try to exploit differences in tastes, or is there perhaps collusion in some markets?

Particularly informative in this part are the contributions by Margareth Slade and Ray Rees on tacit collusion. The first considers a price war in gasoline retailing in Vancouver and asks whether the observed prices are consistent with Folk Theorem type strategies known from the repeated game theory literature. The second uses data reported by the MMC about the British salt market to test which model explains the data best: a static competitive model à la Bertrand-Edgeworth or a dynamic supergame model of tacit collusion à la Abreu-Friedman. One learns of the relevance of the latter model, but also leans that firms were apparently not able to maximize joint profits. As the technique here is not too demanding, these papers can be understood by advanced undergraduates showing them the relevance of the modern theories.

European and American antitrust laws prohibit abusing a dominant position as well as collusion, unless it can be shown that the cooperation has general positive effects. The part on competition policy contains four contributions that study these issues. Phlips has reprinted his EEA presidential address in which he stressed the information problems that antitrust authorities face in detecting collusion and predatory behavior, hence, that economic experts hired by firms will always be in privileged positions. The other chapters in this part deal with agreements of which it is generally considered that they can be beneficial, i.e. vertical restraints and R&D agreements, and discuss how competition laws deal with these. One of these contributions is drawn from and OECD book that was influential in changing the EC policy with respect to vertical restraints. This demonstrates both the broadness of Phlips' selection and the channels through which economic ideas eventually influence policy and market behavior.

Mergers and merger policy are the topics of the final part of the book. The pivotal contribution here is the Farrell/Shapiro AER article in which the authors criticize the US merger guidelines (that appear to be based on the assumption that there is a monotonic relation between concentration, as measured by the Herfindahl index, and welfare) and argue that competition authorities should focus on the external effects associated with mergers: if the merger is expected to benefit consumers and competitors it should be allowed. It is fitting that the Farrell/Shapiro contribution is followed by Gregory Werden's AER comment on it as this gives insight into how the Antitrust Division of the US Department of Justice deals with the merger guidelines.

The book concludes with two chapters that discuss the actual implementation of the merger guidelines in the US and the European context. The message is that actual policy differs from what the guidelines prescribe and that economic variables, such as concentration indices, do play less of a role than is suggested by the guidelines. Interesting in this respect is the discussion on the different roles played by lawyers and economists in the US context. Econometric tests reveal that lawyers are more worried about anticompetitive effects of mergers than economists are and that lawyers have a significantly greater impact on the FTC decisions than economists. This is a nice and sobering message, after all the beautiful theory and tools that have been presented.

Louis Phlips has succeeded in his aim to make the modern industrial organization literature accessible to advanced undergraduate students and to show the usefulness and relevance of some of the newer ideas for the understanding of actual markets and competition policies. As will be clear from the description above, the contributions are a mixture of theoretical and empirical papers, some provide formal econometric tests, others describe industries or actual policies and policy dilemmas. Overall, the book provides a lot of insight and communicates the excitement that the field has to offer. It is warmly recommended, not only for students in the field, but also for all those economists working in regulatory and consulting offices that professionally deal with markets.

Eric van Damme

Terence C. Mills, *The Econometric Modelling of Financial Time Series*, Cambridge University Press, Cambridge, 1999. 372 p, GBP 17.95 (pb) GBP 45 (hb) (ISBN 0 521 62492 4 (pb) 0 521 62413 4 (hb))

One of the conclusions in the first edition of this book, published in 1993, was that it would be out of date rather quickly. The timing of this second edition certainly is appropriate, especially when one bears in mind that many of new time-series techniques that have been developed during the last six years have been either motivated directly by typical features of financial time series or have been readily applied to financial data. Although the basic structure of the book has not been changed, almost all chapters have been revised and updated.

The introductory chapter 1 briefly sketches the history of modelling financial time series and puts the present book into context. The next two chapters deal with univariate linear stochastic processes and ARIMA modelling. What distinguishes this discussion from standard treatments of this material in textbooks on time-series analysis are the various empirical examples that nicely illustrate which aspects are particularly important for the application of such models to financial time series. Compared with the first edition, the discussion of unit root testing in chapter 3 is more formal, with more attention devoted to the asymptotic distribution theory and the use of Monte Carlo simulation to obtain estimates of these distributions. Recent developments such as structural breaks in trends, stochastic unit roots and fractionally integrated processes are covered as well.

In chapter 4, the focus is shifted towards univariate nonlinear models. Stochastic variance, ARCH models and various nonlinear models for the conditional mean, such as bilinear, Markov Switching and smooth transition models are discussed. A new section is devoted to artificial neural networks. It is somewhat unfortunate that the discussion of neural networks is kept rather superficial and is cast in terms of the usual neural network nomenclature. It could have been borne out much more clearly that a neural network can be regarded as a particular nonlinear regression model. The relationship with other nonlinear time-series models therefore might not be very clear at first sight. Moreover, the general feeling one might have after reading this chapter is that it presents a large number of different nonlinear models, without pointing out which models may be most promising in applications to financial time series. A brief summary of empirical applications of nonlinear models would have been useful in this respect.

The completely new chapter 5 deals with techniques that can be used to model the unconditional distribution of (transformations of) asset returns. The most prominent features of these distributions are their fat-tailedness and peakedness. Particular emphasis therefore is given to stable processes and estimation of the tail index of a distribution.

The final three chapters of the book are concerned with multivariate time-series modelling. Chapter 6 discusses conventional techniques for analyzing stationary multivariate time series, such as vector autoregressions, causality, impulse responses, and the like. The structure of chapter 7 is similar, with the important difference that it relates to integrated and possibly cointegrated time series. The error-correction model is used extensively to discuss various issues, such as popular techniques to test for cointegration, causality testing and impulse response analysis. Comparable with the treatment of unit root testing in chapter 3, the discussion of tests for cointegration is more formal, with detailed treatment of the asymptotic distribution theory. The final chapter 8 contains a variety of further topics, such as common trends and cycles, present value models and rational bubbles.

The target audience of the book is identified as ‘scholars and practitioners wishing to acquire an understanding of the latest research techniques and findings, and also graduate students wishing to research into financial markets.’ Indeed, for many people in the above categories, the book is a useful starting point and reference guide for detailed examination of many fashionable topics in financial time-series modelling. Due to the broad coverage of the book, some topics are discussed only in general terms. However, numerous and up to date references are provided which enable the reader to go deeper into the topics of one’s own interest. Moreover, the book appears to be quite useful as a basic text for an advanced undergraduate or graduate course in empirical finance or financial econometrics, possibly supplemented with some journal articles on specific topics.

Dick van Dijk

Lung Fei Lee, *Analysis of Panels and Limited Dependent Variable Models*, Cambridge University Press, Cambridge, 1999. 338 p, GBP 45 (ISBN 0 521 63169 6)

The twelve chapters in this volume, which is dedicated to G.S. Maddala, cover a broad spectrum of different econometric topics. As it seems impossible to discuss all chapters in detail, the focus here will be on the chapters concerning panel data models. Nine out of the twelve chapters are concerned in some way with panel data, which may be best viewed as combined cross-section and time series. More in particular, several interesting problems concerning the estimation of dynamic regression models for panel data are treated in the separate contributions.

In panel data models the inclusion of lagged dependent variable regressors, which makes the model dynamic, is an important complication. As the typical panel dataset has only a few time periods T, in the literature on dynamic panel data models the focus has been on consistent estimation for a fixed T and the number of cross-section units N going to infinity. Standard estimators for static models, i.e. fixed or random effects estimators, are in a dynamic model consistent only when T goes to infinity. In the empirical study of Nerlove on convergence of economic growth between countries the focus is especially on the empirical performance of these standard coefficient estimators in dynamic panels with T finite. The estimation results show large differences among the various estimation methods indicating that one must be cautious when using these estimators in a dynamic setting. Somewhat surprisingly Nerlove does not consider alternative estimation techniques like instrumental variables (IV) or generalized method of moments techniques (GMM), which are consistent for finite T and large N.

Especially the semi-consistent GMM estimators have become popular recently. However, as the number of moment conditions increases with the number of time periods available there is trade-off between using all available moment conditions and practical implementation of GMM, especially in panels with T moderate or large. Apart from practical reasons there is also a statistical argument for not using all available moment conditions. Finite sample properties seem to deteriorate when the number of moment conditions used in estimation becomes increasingly large. In the chapter by Ahn and Schmidt the focus is on redundancy moment conditions, i.e. moments which can be left out without loss of efficiency. The analysis has a limited scope, however, i.e. only static regression models with strictly exogenous regressors are considered.

In the chapter by Kiviet another route is followed to achieve semi-consistent estimation in dynamic models. Using asymptotic expansion techniques approximation formulae are derived for the bias or dislocation of several standard estimators, i.e. fixed effects and simple IV estimators. As already mentioned, the fixed effects estimator is consistent only for T large. However, the approximation formula for the finite sample bias can be used to construct a bias-corrected estimator, which is consistent for finite T. As the fixed effects estimator has relatively small variance, an efficient estimation procedure results. Kiviet also analyses the effect of weak exogenous regressors on the finite sample properties of estimators. From the developed expansions it is seen that weak exogenous regressors have equally important effects on the dislocation of estimators are the presence of lagged dependent variable regressors.

In the standard panel data model, the only heterogeneity allowed for is in the constant term, which can be individual and/or time-specific. In panels with sufficiently large T and N this rather restrictive assumption can be loosened by also allowing for heterogeneity in the other regression coefficients. The study by Hsiao, Pesaran, and Tahmiscioglu is concerned with statistical inference in dynamic random coefficient models, i.e. models in which the full parameter vector is assumed to be stochastic. The focus is on estimating the mean parameter vector and its covariance matrix. In dynamic random coefficient models, panel data estimators as described before are invalid. The authors propose several alternatives, which are consistent for both T and N going to infinity. The authors show that the so-called empirical Bayes estimator and mean group estimator have the same limiting distribution. The former is a weighted average of the separate OLS estimators of each individual equation and the latter the arithmetic average. The limit theory developed is valid for N growing at a faster rate than T.

In the study by Pesaran and Zhao the mean group estimator is analysed in more detail. More in particular, the estimators of the long-run effects, which are dependent on the short-run coefficient estimators, are analysed. Using similar techniques as used in the chapter by Kiviet bias approximation formulae for the long-run coefficients are developed and bias-corrected estimators are constructed. In Monte Carlo experiments the accuracy of these and other estimators of the long-run effects is analysed. It turns out that for a high coefficient of the lagged dependent variable regressor most techniques fail in producing accurate inference.

My overall impression of the quality of the twelve chapters in this volume is good. The title of the volume summarises the two main fields covered, i.e. models for panel data and limited dependent variable models. However, the models and topics exposed in the different chapters are widely dispersed by nature. As such, the title of the volume gives at most a vague idea of what the contents really are.

Maurice Bun

Avner Ben-Ner and Louis Putterman, (eds.), *Economics, Values and Organization*, Cambridge University Press, Cambridge, 1998. xxxiii + 523 p, GBP 55.00 (USD 85.00) (ISBN 0 521 58087 0)

Three men were discussing how to relaunch a stranded balloon. I forgot what the first two men said but the third was an economist who suggested to first make some simplifying assumptions leading to a model which they could solve. This story illustrates the position of the economist who stripped man to become *homo economicus* so that he fitted into the neo-classical model which the economist could neatly describe mathematically and solve elegantly. This anecdote came to my mind when I studied the book of Ben-Ner and Putterman who criticise the paradigm of the homo economicus. They organized a conference with the same title at Yale University on April˜19-21, 1996, with 60 academics from economics and other disciplines and a small number of students and journalists in attendance. The book consists mainly of (revised versions of) papers that were presented at the conference. The contributions fit into a research program of the editors to widen the scope of economics both by (1) taking more note of the *influence* of norms and values and (2) doing more research on the *formation* of values and norms. They aim at a research agenda that treats ‘Values as partly endogenous to the economic system and economic systems and their performances as partly functions of people’s values.’

The book offers five substantial parts preceded by a useful introductory preface by the editors and a stimulating foreword by Amartya Sen and concluded by a challenging epilogue by Douglass North. The five parts deal with: I: ‘The Formation and Evolution of Social Norms and Values’ (Robert Sugden, Ken Binmore, Chaim Fershtman and Yoram Weiss, and Jane Mansbridge); II: ‘The Generation and Transmission of Values in Families and Communities’ (Nancy Folbre and Tom Weisskopf, Samuel Bowles and Herbert Gintis, Timur Kuran, and John Michael Montias; III: ‘Social Norms and Culture’ (Robert Frank, Susan Rose-Ackerman, and Viviane Zelizer); IV: ‘The Organization of Work, Trust, and Incentives’ (Ernst Fehr and Simon Gächter, Andrew Schotter, Jonathan Barrow, and Russel Hardin); V: ‘Markets, Values, and Welfare’ (Bruno Frey and Robert Lane). The book has a philosophical flavour. In their surveying paper in part I Ben-Ner and Putterman discuss why values matter in economics stressing that contemporary society is suffering from a ‘crisis of values’ and indicating that the existence of institutions (rules, laws, norms and customs) and organizations (firms, families, schools, media, government agencies, and courts) are mutually related with the costs of operating an economy. Central throughout part I is the question as to the source of our norms and values. Preferences are according to Ben-Ner and Putterman self-regarding, other-regarding and proces-regarding. Norms are agreements of the community. Sugden argues that a large part of individual behaviour can be explained with evolutionary game theory. Binsmore bids attention for the ‘veil of ignorance’. These authors claim that rational behaviour goes far: selfish behaviour may be directly or more indirectly based on non-cooperative solutions of evolutionary game theory and even if the Pareto-optimal solution in a particular context requires cooperation, evolutionary solutions may exist using rational behaviour of the common participating parties. But Mansbridge is of the opinion that a large part of our actions is not founded rationally but needs non-rational explanations such as Immanuel Kant’s categorical imperative or Rawl’s principle of justice. Economists are usually less interested in the question why some people prefer beef whereas others prefer chicken. They will agree with Sen's statement that both rational and non-rational motives are of relevance.

Part II of the book dealing with the transmission of values follows as a natural sequence. It is of course a long way from transmission of values within the family to dispersion of values in the community but in view of the assimilation processes evoked by immigrations all over the world research is nowadays challenging enough. In this respect the contribution of Timur Kuran on the sustainability of multiculturalism is interesting. I am not aware of the existence of studies that try to solve cooperative problems by evolutionary game theory through first combining participants into promisive cooperative groups such that a non-cooperative solution for the game among groups is viable. Such would be interesting as evolutions may well follow such lines in reality.

In his epilogue North tries to sketch how economies evolved in the past and he evaluates weak and strong points from which he deduces lessons for the future. Between this final chapter and the two parts discussed above there are in parts III to V nine chapters – theoretical and applied – on the various fields where norms and values interfere with economic issues. They offer too wide a palette to be discussed here but they certainly deserve reading like the rest of the book.

Nol Merkies

Julian L. Simon, *Economics against the grain* (Vol I and II), Microeconomics, Industrial Organization and Related Themes, Edward Elgar Publishing, Cheltenham, 1999. 480 + 744 p, GBP 69.95 + GBP 75 (ISBN 1 85898 169 7 + 1 85898 170 0)

Julian Simon is a remarkable economist. That is at least the impression that lingers on after having read his collective work and the accompanying introductions to the articles in the two thick volumes *Economics Against the Grain*. His place among other eminent and often dissenting economists portrayed in the series *Economists of the Twentieth Century* (edited by David Colander and Mark Blaug) is well deserved. Simon has earned his mark as an economist who challenged the politically correct views of doomsday prophets like Paul Ehrlich and who clashed with numerous economists on issues of fertility, immigration, environmental pollution, and preservation. The title of the two volumes derives from the advice his father gave him when cutting a board with a hand saw: always try to cut with the grain rather than across it. As he confesses in the introduction: 'I have always yearned for the pleasantness of working with the grain. Nevertheless, much of the time I have seemed to be working against it, and that may be a big reason for the troublesome results that I have obtained.' The introduction to the book is a delight as it reveals how Julian Simon views his intellectual development in a light-hearted tone of voice, although he also reveals himself to his reader as being frustrated by the way in which the economics profession has treated his work. To understand Julian Simon one should absolutely read this introduction. He was not at all trained as an economist, but he started with undergraduate experimental psychology, three years Navy, one year business, a four-quarter masters degree in business administration, a bit of marketing, a thesis on the optimal storage of books in university libraries and then on to becoming an entrepreneur in the mail-order business. His first (and successful) book was *How to Start and Operate a Mail-Order Business* (1965), he made a mess of his PhD exam, he was thrown out of the department of advertising at the University of Illinois for lack of productivity. In short, these are no credentials for becoming an established member of the academic community, certainly not in the US. Still, the fact that he did become a noted academic tells you much about the perseverance of Julian Simon. He had to wait some time before his work received attention: only from the year 1980 onwards did his work on population and resource economics gain prominence; it also attracted furious reactions. The attention he gained did not imply that things went rather smooth from that moment on. Just listen to what a referee of the top journal *Demography* had to say on a piece of Simon's (1989) work[1]: 'This is a very disappointing essay. This essay is so simple-minded, the analysis to superficial, the literature and data cited so sporadic, and the style so flip that it has no place in a scholarly journal. It may deserve a better fate than the *National Inquirer*, but what that would be I know not.'

Reading the work as put together in these two volumes gives the reader a flavour of how Julian Simon developed as an intellectual as life went on. The collected work contains such diverse themes as economic philosophy, marketing, microeconomics, industrial organisation, macroeconomics, statistics and probability, population economics, natural resources, immigration and welfare economics. With hindsight one can understand why he met so much resistance by referees and editorial boards of so-called 'scientific' journals. The articles reprinted in these volumes show how he approaches his subject in an unusual manner, a bit like a freshman without having mastered the standard literature, he uses methods which seem somewhat outdated, and the derivation of his assertions are rarely elegant. In short, the recipe for receiving numerous negative replies from editorial boards. His works on endogenous technical progress would have received more response and perhaps applause if it would have been written up more elegantly. Still, without these lacunae Julian Simon would not have become the maverick economist he was known for. As he acknowledges himself 'this lack of training has saved me from getting stuck with some conventional ideas which are wrong...' and as I would add, the lack of sophistication has become a profitable trademark as it made messages simple and easily accessible, and perhaps therefore his sound become a dissenting one in the formalised world of mainstream economists.

Economics Against the Grain has become a sort of personal 'scrapbook' with lively introductory comments by Julian Simon himself. Unfortunately he did not live to see the final product of his making. With his sudden death in February 1998 the economics and demography profession has lost a colourful member. The world should not be filled with clones of Julian Simon and I certainly would not propose that his education should be made an example for all future graduates, but one or two Simons should do the job of making economics a lively and varied subject. The two volumes of Julian Simon's collected work compensate somewhat for his loss and are an excellent tribute to this remarkable self-made economist.

Hendrik P. van Dalen

1 Simon, J.L., 1989, Lebensraum – Paradoxically, Population Growth May Eventually End Wars, *Journal of Conflict Resolution*, 33, 164-180.

John Creedy, *Measuring Welfare Changes and Tax Burdens*, Edward Elgar Publishing, Cheltenham, 1998. 240 p, GBP 49.95 (ISBN 1 85898 921 3)

This book studies the issue of optimal taxation from an empirical point of view. Standard theory tells us that taxes usually have a distortionary impact on the economy and lead to efficiency losses and outcomes which are not Pareto-optimal. On the other hand, taxes can be used to reduce inequality and thus improve social welfare. In the optimal taxation literature, the value of a social welfare function is maximized to attain an optimal trade-off between the efficiency costs and equity benefits of taxation. The implications for actual tax policy, however, are not determined by theory alone. They require knowledge of the utility functions of the consumers. This is an empirical issue. This book reviews the theoretical concepts and practical approaches to the measurement of welfare from consumer demand systems. It then provides a number of practical examples where this type of welfare analysis is applied.

The distortionary effect of a tax system is usually described using the concepts of equivalent variation or compensating variation. In a partial equilibrium framework, indirect commodity taxes lead to higher consumer prices. The compensating variation is the amount of additional income required to compensate a consumer for the utility loss due to the price increase. The equivalent variation is the amount the consumer would be prepared to pay to avoid the price increase. Both of these amounts are higher than the tax revenues, and the difference can be seen as a measure of the inefficiency of the tax system compared to a system of lump sum taxes – the dead weight loss.

While these concepts are originally designed to compare a situation of no taxation to a situation with taxes, they can also be used to analyze the marginal welfare costs of additional taxes in a given tax system. This is done using the marginal cost of welfare, which is determined by the difference of the additional equivalent variation and the additional tax revenues. This framework can easily be extended with labour supply, since income taxes can be interpreted as a negative tax on leisure.

The author explains why it is difficult to measure the compensating or equivalent variations in practice: complete knowledge of the demand system is required. There are two solutions to this: an approximation which only requires the knowledge of elasticities at the observed consumption bundle, or a full specification of an empirically feasible demand system. Such a system is provided by the Linear Expenditure System (LES). This system imposes restrictions between own and cross-price elasticities and income elasticities which make it possible to estimate it using cross-section data, without price variation. LES is used in most of the remainder of the book. The LES parameters are allowed to be different for different income groups, to account for the fact that many empirical studies have rejected the use of one LES for the whole population. Optimal tax analysis becomes practically feasible with LES, since LES gives analytical expressions for the equivalent incomes corresponding to given utility levels and (tax-including) prices, which can be combined into a value of social welfare using a chosen social welfare function with given inequality aversion.

The first application the author presents concerns potential marginal tax reforms in Australia. The marginal tax revenue costs for 16 commodity groups are derived, for various values of inequality aversion. The gives the intuitively appealing result that luxury goods should be taxed at a higher rate if inequality aversion is high. It is also shown, however, that many conclusions about directions of marginal changes hardly depend on inequality aversion. For example, taxes on fuel, alcohol, and tobacco, are too high from the pure point of view of this framework.

In the second application, the actual New Zealand reform of indirect taxes in the mid-eighties is analyzed. The results show that the reform has shifted the tax burden somewhat from the low income to the high income households, probably because of the tax exemption of residential rents. It is also found that tax exemptions for necessities such as food or domestic fuel and power are an expensive way to obtain some progressivity.

Since prices typically rise with different, inflation can have distributional effects. These price changes can be analyzed in the same framework. The author investigates the size of these effects for Australia for 1980 to 1995 and New Zealand for 1993 to 1995. He finds that the sign of the effects differed over the years and the overall impact on income inequality has not been substantial.

The final – and most interesting – application concerns the order of magnitude of a carbon tax which would be required to reduce carbon dioxide emission in Australia such that the Toronto Target is met. The estimated carbon tax needed to reduce emissions by 20% is about 300 US$ per tonne of carbon, which is high but lower than the estimate calculated for the UK. It is shown that such a carbon tax would reduce tax progressivity and would thus increase inequality. Transfer payments could be adjusted to compensate for this.

Overall, this book is an interesting overview of theoretical and empirical issues in the literature on taxes and welfare. The book is clearly and thoroughly written. Although it is self-contained and reviews the main concepts, I do not think it can be read without some background in micro economics. The book clearly illustrates the gap between elegant theoretical models and the many complications of the real world and lays out the practical methods and compromises which are needed to overcome this gap. The applications illustrate how this can be done in such a way that economic theory can become a useful tool for policy analysis.

Arthur van Soest

Joel Slemrod (ed.), *Tax Policy in the Real World*, Cambridge University Press, Cambridge, 1999. 515 p, GBP 15.95 (pb), GBP 42.50 (hb) (ISBN 0 521 64644 8 (pb), 0 521 64137 3 (hb))

This volume collects articles from the Symposium Series of the *National Tax Journal* from 1993 to 1998. The purpose of this series is to bridge the gap between academics and policymakers, or stated differently, between the theory on the design of tax systems and the implementation in the real world. The papers in this volume are non-technical and do either review the academic literature on specific tax issues from a practical point of view or evaluate existing tax systems or tax proposals from an academic point of view. I use the word ‘academic’ to indicate that not only economic theory but also arguments from other social sciences are being used by the authors.

This volume discusses various taxes and tax-related issues, which will be discussed below. Some issues are discussed quite extensively, like decentralization and the use of public choice theory, but others remain very unsatisfactory by focussing on a single aspect of the issue. Some papers are quite general in focus, where the authors discuss a tax issue from a broad perspective. Other papers are applied to specific tax proposals or tax systems, where some of them are very specific for the US, where others have a broader perspective.

The volume starts with an introductory chapter by Slemrod offering a collection of abstracts of the papers included. This chapter shows that the volume includes many aspects of tax policy, where the unifying theme is to support the dialogue between those who think about policy and those who do tax policy.

Each of the following chapters consists of a collection of papers. In the second chapter, a few recent US tax proposals are being discussed. First, income from equity-financed corporate investment is taxed twice in the United States, by the corporate and personal income taxes. The authors discuss reforms of the corporate income tax by surveying the economic literature and they show that Harberger's (1962) conclusion that capital plays the tax still holds. Next, various recent tax proposals like taxing consumption instead of income are discussed from a practical point of view, showing amongst other things that a flat tax will probably not be as simple in practice as it appears to be theoretically. The chapter concludes with an international economic view on the consumption tax and shows that this tax might attract foreign investment because the returns will be consumed abroad.

How should tax payments be divided between central governments and union members or states and should there be grants among them, are questions that arise both in Europe and in the United States. These questions are being discussed in the third chapter, starting with two survey articles about the economic and practical aspects of (de)centralization, highlighting the trade-offs between equity and efficiency and between flexibility and the presence of spill-overs in tax collection and tax evasion. The next paper investigates the link between decentralization and economic growth and shows that decentralized finance has a potentially useful role to play in economic development. The remaining part of this chapter consists of applications to the US, a critical essay on equalization and two papers about the evaluation of tax policy, emphasizing that one should focus on various welfare measures rather than on a single measure like changes in employment.

This warning is extended in the fourth chapter of the book to the use of debt as an economically relevant evaluation criterion, and a warning that it is difficult to asses the macroeffects of tax reforms, because time is short, reforms are complex, policy is endogenous, and measurement is poor. Because policies are complex economists should not only use simple stylized models for analyzing the effects of tax reforms, but should also rely on applied analytical models. Nevertheless, one attempt to measure the link between taxes and growth is made, showing that the link is clearly present in cross-section analysis but very weak in time-series estimations.

The second part of this chapter discusses the optimal design of a tax system. The authors emphasize that one should take not only efficiency and equity into account, but also include compliance and administration costs in the analysis of tax design. Others argue that economic theory should take into account that the design of taxes is a political decisions process influenced by interest groups. The public choice literature offers two means of analysis. First, take these processes explicitly into account. Alternatively, design the tax system in such away that special interest tax benefits are prevented. The chapter is completed by an overview of what economists think of taxes and by a comparison between the US and UK tax systems.

The additional value of this volume is that it brings several papers about specific topics together. Moreover, the volume includes a subject index, which makes the papers more easily accessible. This volume is a good source for policymakers by offering both economic and practical arguments in favor of, or against, several tax policies. The book is not innovative from an economic point of view, but will be useful for those concerned with applying economic knowledge to the real world.

Albert van der Horst

Michael Fritsch and Hendrik Hansen, *Rules of Competition and East-West Integration*, Kluwer Academic Publishers, Boston/Dordrecht/London, 1997. 240 p, NLG 250 (ISBN 0 7923 8040 1)

This book is the result of a 1996 conference entitled 'Rules of Competition and East-West Integration.' One aspect of transition, namely the process towards membership of the European Union (EU), indeed has gathered momentum since the date of the conference. Meanwhile, ten Central and Eastern European countries (CEECs) are admitted to a negotiation process, which must enable them to eventually become full members of the EU. The candidate countries are expected to adopt, implement and enforce the *acquis communautaire*. Two questions are important here. First, does the immediate adoption of the acquis actually support the countries during the difficult transition process? Second, are all parts of the acquis equally important to guarantee adequate operation of the internal market? These two questions are also important with respect to the topic of this book, competition policy. What actually constitutes an appropriate competition policy during the process of transition, and are EU-like competition rules adequate for the first phase of transition, when a competitive market is under way? Is it a necessity to introduce an EU-like competition policy in order to integrate the CEECs into the EU? This book contains, apart from an introductory chapter and a chapter with conclusions by the editors, 11 contributions that address these questions.

The book is a collection of unequal contributions that are organised in three parts. The rationale behind the first and the cohesion between the three chapters of this first part are difficult to grasp. According to the editors, part I deals with the objective of the integration process. The first chapter gives an overview of the state of integration, discusses future integration concepts, and addresses competition policy in transition. The second chapter deals with the possible tensions between widening and deepening of the EU. This discussion leads to the rather obvious conclusion that there is a need for institutional reform within the EU before successful enlargement can take place. Other conclusions are truly out of date, for instance the recommendation that countries like Bulgaria and Romania should become member of EFTA, as the hurdles for EU membership are too high. The third chapter gives an interesting overview of the successful reform process in New Zealand, but the relevance for the topic at hand is not always clear.

The second part of the book is more straightforward and deals with the particularly interesting question of what is an appropriate competition policy during the transition. In this part, the evolution of the competition policy during transition is discussed in three case studies on East Germany, Poland, and Hungary. The East German experience shows that the German Federal Cartel Office (FCO) had a very limited role in the initial phase of transition. The most important reason for this is that the FCO was created in order to protect existing competition, not to promote emerging competitive structures. It is clear that in the initial phase of transition the emphasis should be on privatisation and demonopolisation. Only in a subsequent phase of transition, the emphasis should be on the protection of competition. In the discussion of the Polish case, a clear distinction is made between a period of creation of competition, a period of supporting competition, and a period of approximation to EU law. The Hungarian case also reveals that in the first phase of creating markets, competition policy is complex and interconnected with privatisation, but also with trade policy. The general conclusion from these case studies is that the EU set of competition policies is not the best framework to deal with the specific problems of the first phase of transition.

The third part of the book deals with the question how rules of competition should be designed in order to promote integration. An important question here is whether full adoption of an EU-like competition policy is a prerequisite in order to become a member. The answer is that, in principle, it is not. National competition policy authorities deal with local monopolies, cartels, and mergers. The commission deals with those mergers and cartels which have cross-border implications. Nevertheless, there are at least two reasons mentioned here why it may be best for the CEECs to adopt EU-like competition rules. First, why should CEECs put an effort in reinventing a competition policy all over again, when the Brussels legislation, including its 'after-sale service' is available. Second, after having adopted the EU competition rules, the CEECS cannot be accused of having inappropriate rules that safeguard fair competition. Meanwhile, there is another reason why it may be advantageous to implement an EU framework. The Commission drafted proposals towards a more decentralised system of competition policy, in which the national competition authorities are to be involved in the application of EU rules. From that perspective, one set of rules would greatly improve the transparency of the system. At any rate, some CEECs are basing their competition policy rules on the EU framework. Poland is planning to change its competition policy conform EU rules by mild 2000.

The book ends with a still very topical note of caution. According to the editors politicians often make decisions and consider the problems involved only afterwards. Many politicians tend to prefer a swift enlargement, mainly for reasons of political stability. The German editors, having the East German disaster in mind, are quite worried about the tremendous economic costs of an accession that comes too quickly. One lesson of the book must however not be forgotten: the New Zealand experience has shown that it is possible to achieve major structural change with the help of massive foreign investment. The prospect of full membership has a large impact on the attractiveness of the region to foreign investors, which will certainly help them on their transition path.

Guido Biessen

Mervyn K. Lewis (ed.), *The Globalization of Financial Services*, Edward Elgar Publishing, Cheltenham, 1999. 672 p, GBP 150 (ISBN 1 85898 893)

Globalization of financial services is a process of opening up national economies and markets. This book brings together a range of articles examining the nature of globalization in financial services as well as its implications in several areas. The volume consists of six parts. It begins with international trade in financial services. Then it looks at the cross-border expansion and organization of financial services through banking. Three areas – banking, offshore financial services, and secrurities – are the next focus of attention. The volume concludes with a part that concentrates on the regulatory issues posed by the globalization of financial services.

The overview of trade in financial services involves the analysis of access to markets from abroad on a trade basis as well as the establishment of commercial operations in importing countries. The view here is that in banking international trade is complementary to foreign direct investment. Many words are spent on the distinction between goods and services. However, the boundaries between the two are likely to disappear, especially because of the changes in communications and information technology. This has brought services much more in the 'tradeables' category as they can be carried out over long distances and cross-border.

The part on 'Multinational banking' starts with Herbert Grubel's 1977 paper on the theory of multinational banking. He defines it as 'the ownership of banking facilities in one country by citizens of another.' Today, multinational banking is reserved for banks that operate in a large number of countries and geographic regions. Most of them offer their services to corporate clients and sovereigns. Multinational retail banking seldom has proven successful.

The origin and development of Eurocurrency banking of course is an issue that warrants a lot of attention in this book. In the Euromarkets, banks located in one country take deposits and make loans in the currency of other countries. Initially, this was almost entirely in US dollars. But today, the share of the US dollar is less than 50%. Furthermore, about four-fifths of international banking takes place in the Eurocurrency banking market. This part of the book includes Milton Friedman's famous article that viewed the Eurodollar market both as a monetary and a banking phenomenon. Two approaches of the Eurodollar market, the portfolio analysis and the multiplier analysis, are extensively discussed.

Offshore banking is purely driven by arbitrage opportunities that mostly arise from differences in (tax) regulation between countries. Part IV of the book illustrates this. Thinking of international financial services of course immediately draws the attention to the foreign exchange markets. This segment of the international financial market is surrounded by a lot of misunderstandings about what actually goes on in them. Part V of the book comprises some articles that shed a clear light on the relevant subjects involved. Another topic is the structure and the role of the Eurobond market. Dealing with volatile exchange rate movements has resulted in a tremendous innovation of financial products. This interesting process is highlighted in this part too.

Regulation, by nature, is to lag behind market developments and is often driven by events. As such, it was the closure of Bankhaus Herstatt in 1974 that caused the putting together of institutions for the coordination of national regulation of international banks.

This was under the auspices of the Bank for International Settlements. Since then, this institution has acted as a think-tank for 'International financial regulation' and has given productive impulses to the debate on how to achieve a true level playing field for financial institutions around the globe.

This volume is very welcome as a general and introductory book to the internationalization of financial services. It covers a broad range of issues that are relevant in this respect. However, its strength is at the same time a weakness as it does not really go into depths with respect to the issues dealt with. Furthermore, the editor did not clearly choose between putting up an overview of the history of economic thought on financial globalization and covering a wide range of interesting topics. The result is that on both accounts the book does not suffice. The articles selected by the editor in general are rather descriptive and non-technical. Modern – more micro-economic-oriented – research in international finance is not included in the book. Furthermore, non-bank financial institutions, such as mutual funds, insurance companies or pension funds, are seldom put central in the articles selected. And it is with these financial service providers that remarkable and interesting changes take place. Nevertheless, the book is interesting reading for those who want to have a first and basic understanding of the issues involved in the globalization of financial services.

Bert Scholtens

David C. Cole and Betty F. Slade, *Building a Modern Financial System: The Indonesian Experience*, Cambridge University Press, Cambridge, 1999. 379 p, GBP 15.95 (pb), GBP 40 (hb) (ISBN 0 521 65088 7 (pb) 0 521 57092 1 (hb))

This book contains an extensive discussion of the development of the Indonesian financial system between 1966 and 1996, a period which more or less coincides with the Soeharto era. During these years, Indonesia's financial system was transformed from a highly government-controlled system to a market-based system. The authors were involved in several financial reforms as advisors to the Indonesian government. Interestingly, as the book was completed in 1996, the authors could not have been aware of Asia's financial crisis that started in 1997, and which hit Indonesia even more than its neighbours. Nevertheless, it is hard to read this book from another perspective than the recent downturn, which might even be considered as an 'out of sample' test of the analysis and conclusions in the book. In a way, this is suggested by the authors themselves at the end of the book, where they write that 'Most financial systems do experience crises sooner or later, and Indonesia is not likely to be an exception. If and when such a crisis arises, its handling will provide an important test of how sound a structure has been created.' In addition, they express their concern about the rise in foreign debt obligations in the 1990s. If the authors would have known about the financial crisis, they would probably have paid more attention to concerns regarding banking supervision.

The book gives a detailed and well-documented overview of developments that have taken place in the financial sector. In addition, the authors have tried to embed this wealth of information in a more general context by discussing macroeconomic developments over the past decades. In general, the macroeconomic environment has been favourable for the development of the financial system: the government had a balanced budget most of the time while inflation was, especially since the early 1980s, under control. Further, it is striking that already in the early 1970s most foreign capital controls were removed while other reforms, such as the removal of credit and interest rate controls, were removed much later. External factors such as the oil price shocks in the 1970s had important consequences for the economy and also for changes in the financial system. At the end of the book, attention is paid to political economy issues which have been crucial at several times. Obviously, the role of president Soeharto has been important, but also the role of several groups in the Indonesian society that often had a particular interest in certain measures. For instance, the ethnic Chinese minority controls a large part of the economy and has traditionally been more internationally orientated than most Indonesians.

In sum, this book is a very useful reference work for those interested in the role of the financial system in developing economies. It clearly shows how difficult it can be to take the right decisions in a rapidly changing environment and that policymakers should always be prepared to correct their decisions if these turn out to be wrong.

Jan Kakes

Organisation for Economic Co-operation and Development, *EMU One Year On*, OECD, Paris 2000. 200 p, USD 39/FRF 250 (ISBN 9 264 1 763 9 X)

The OECD report provides an assessment of the economic developments and policies during the inaugural year of the euro. The emphasis is on the macroeconomic policy pursued and the progress made so far in achieving convergence, as well as the prospects that lie ahead for the single currency zone. The report is divided into four parts, each summarised as follows.

The first part described the path of the main macroeconomic indicators in the euro zone and what they imply for the near future. The authors argue that after the adverse effect of the emerging markets crises of 1997-1998 in which GDP growth had slowed down significantly, the level of growth has now picked up. This, they argue, was facilitated by the improving environment externally, as well as the accommodation of monetary conditions and the broadly neutral fiscal stance domestically. Similarly, employment has become more responsive to output growth, although the level of unemployment and its long-term component are still very high. Inflation has remained at the levels required prior to the adoption of the single currency, although it is argued that inflation above 2 per cent could be seen as a symptom of overheating for some countries.

In the second part, the authors discuss the monetary policy stance which they judge as appropriate. However, this does not stop the existence of significant differences, implying that the one-size-fits-all monetary policy affects the countries asymmetrically and in an asynchronous manner. Although comparatively smooth, the transition from national to euro-wide monetary policy was occasionally inhibited by confusion as to what the Eurosystem's view on the exchange rate was. The ECB has been very much learning-by-doing and has found that improved discipline to ‘speak with one voice’ reduced the scope for ambiguity on a number of occasions.

In light of assessing macroeconomic policy, the authors next turn to the fiscal implications in the shorter and longer run. The authors evaluate progress with fiscal consolidation in the euro zone, not only in light of satisfying the 3 per cent deficit rule but also in light of leaving sufficient room for automatic stabilisers to operate in the advent of cyclical shocks. The Maastricht rule has been characterised as overly restrictive, and therefore a number of ‘accounting’ suggestions on how to by-pass it have been put forward. These suggestions, however, suffer from the fact that they do not make any adjustments in view of sustainable fiscal positions. The challenges that the euro area will face with respect to the fiscal sector, argues the report, are reducing high debts and coping with an ageing population.

The last section is of a more analytical character in which the report discusses a number of issues that explain growth in Europe. The authors identify seven factors that contribute to growth and use these to compare the individual country performance in the euro area. Of particular interest is the comparison of productivity (as measured by output per hour worked) between Europe and the United States. It appears that output per hour in the euro zone rose from 70 per cent of the United States level in 1973 to 94 per cent in 1998. However, while the productivity gap seems to have closed, the income per head remained at 66 per cent of the American level. In that respect, the measure of productivity does not constitute an appropriate indicator of improvements in welfare. The authors suggest that this gain in productivity may have been achieved at the expense of employment, since participation rates stagnated and remained much lower in Europe relative to the US. This effect was accentuated by a combination of technical change, relative wage inflexibility, and structural rigidities.

The report is written in a succinct and lucid manner, striking a very good balance between describing events during the first year of the euro’s existence and the challenges that lie ahead. It gives sufficient emphasis to the institutional aspects of EMU, an issue that will become more and more relevant as the euro zone expands. Enlargement, however, is only barely mentioned at the end; this is perhaps the only issue that merited more attention, in light of the increasing number of candidates as the euro zone becomes more and more settled in the ways of the single currency.

Maria Demertzis

Maureen Cropper, *Valuing Environmental Benefits*, Edward Elgar Publishing, Cheltenham, 1999. 399 p, GBP 75.00 (ISBN 1 85898 737 7)

This book contains a number of articles that Maureen Cropper wrote together with other authors since 1980. She is Professor of Economics at the University of Maryland and regularly works at Resources for the Future, a think tank based in Washington D, C. Central to her book is the valuing of environmental benefits on the basis of contingent valuation methodology and especially the willingness to pay for environmental improvements. This willingness to pay is partly derived from what the public states to be its willingness when interviewed and partly from the revealed willingness of government institutions such as the US Environmental Protection Agency (EPA).

In Cropper's opinion, benefits that follow from willingness to pay should be included in cost-benefit evaluations of public policies to establish whether the marginal costs of such policies exceed marginal benefits. By approaching environmental matters in this way, Professor Cropper comes up with remarkable findings. In analysing actual pesticide policy of the EPA she concludes that the implicit value attached to preventing a cancer case among pesticide applicators was $ 35 million, whereas the corresponding value attached to reducing the risk of pesticide residues to consumers was $ 60.000. She also finds that for time horizons of 5-10 years mean discounting rates for lives saved as perceived by Americans are approximately equal to mean discount rates for money. The discount rate for a life saved in 10 years, as found by her, was 11% whereas it was 5% for a live saved in 50 years and less than 4% for a live saved in 100 years. This in turn has remarkable consequences, which for instance come up in the discussion of dealing with asbestos. Exposure to asbestos is associated with long latency periods before its effect (lung cancer or mesothelioma) emerges. Now this has, she suggests, important consequences for the willingness to pay. On the basis of her data willingness to pay at age 40 for a reduction in risk of death at age 65 is only 10% of the willingness to pay at age 40 for a reduction in current risk of death. Because the EPA neglects such discounting, Croppers thinks that the benefits of controlling substances with long latency times tend to be greatly overestimated. On the other hand she also finds that, in dealing with toxics, considerations of costs and benefits explain 85% of the EPA decisions found.

Reading *Valuing Environmental Benefits* is made interesting by such findings, but there are three features of Croppers work that are highly unsatisfactory. Firstly, Professor Cropper is silent on the methodological robustness of willingness-to-pay résearch. There is substantial evidence that interviewees have difficulty in translating their opinions on environmental matters in monetary terms and that their actual preferences are multidimensional and difficult to assess monetarily. Thus the outcomes of inquiries may be artefacts of surveys rather than representations of the true value that people attribute to their environment and changes therein.[1] Secondly, Cropper is curiously uninterested in the uncertainty of many of the data that the uses. For instance she states that a programme to detect breast cancer among women over the age of fifty has been estimated to cost $ 15.000 per life year saved, while the cost per life year saved by a regulation to reduce airborne exposure to benzene is approximately $ 5.000.000. Such statements do not adequately deal with uncertainty. The estimates of lives saved by breast cancer screening programmes vary widely. This follows from major uncertainties about the frequency with which such screening programmes induce cancers and about life extension following early detection. The value quoted by Cropper is at the optimistic end of the uncertainty range. At the other end one may find values in the order of millions of dollars per life year saved. Moreover, *ex ante* estimates of the cost of emission reduction may differ strongly from the actual costs. Usually *ex ante* estimates tend to be overestimates. Those who provide cost data are often the objects of regulation and may be expected to exaggerate costs to make regulations more lenient. Furthermore, low dose-effect relations for carcinogens are highly uncertain

1 M. O.'Connor and C. Splash (eds.) *Valuation and the Environment*, Edward Elgar, Cheltenham, 1999.

and again this is not reflected in the data that Cropper uses.[2] Thirdly, cost-benefit analysis using willingness to pay data is a controversial tool in the evaluation of environmental matters because of its underlying assumptions. These assumptions neglect distributive justice and the possibility that there is value incommensurability. It is highly unsatisfactory that Professor Cropper does not go into the discussion about the acceptability of such assumptions.

Lucas Reijnders

Martin O'Connor and Clive L. Splash, *Valuation and the Environment*, Edward Elgar Publishing, Cheltenham, 1999. 339 p, GBP 59.95 (ISBN 1 85898 538 2)

This is a well-argued book. I read it in conjunction with Maureen Cropper's *Valuing Environmental Benefits* and the difference is striking. *Valuation and the Environment* is a multi-author volume in the series *Advances in Ecological Economics*. It goes deeply into methodological problems with, and underlying assumptions of, environmental valuation techniques developed by economists. Its content ranges from practical examples of such valuations to analysis of the relevance of concepts such as commensurability and safe minimum standards of environmental protection. Both monetizable and non-monetizable environmental impacts are dealt with. Several contributors come up with practical advice, for instance for improvement of the management of global genetic resources or the operation of the Environment Agency in the UK. Both the conservation value of the British coast and non-monetizable impacts of energy use are analysed. In the latter context it is argued that 'unforgiving' technology, such as nuclear power, should be banned and that burning fossil fuels should be speedily eliminated.

The introduction by editors O'Connor and Splash is excellent and many of the contributions are thoughtful. The book also has a clear message. It is argued that the application of traditional economic tools has only limited value. The editors are highly sceptical about cost-benefit analysis and contingent valuation, though they feel that analysis of economic efficiency is quite useful as to environmental matters. They think that environmental valuation should bring together scientific, social, institutional, and economic considerations in real time and they stress that social choice concerning environmental matters should involve multiple criteria and compromises. Several of the contributing authors emphasise the importance of good procedures and institutional arrangement over the use of economic instruments.

2 Uncertainty in data has been discussed extensively in scientific literature, especially concerning risk estimates. As to carcinogenic agents, that are relevant in the present context, the uncertainty range may exceed ten orders of magnitude (cf. A.M.J. Ragas, *Uncertainty in Environmental Quality Standards*, PhD thesis, KU Nijmegen, 2000). In 1994 the National Academy of Sciences/National Research Council in its report *Science and Judgement in Risk Assessment* (National Academy Press, Washington, DC.) has recommended that estimates should be expressed as ranges or distributions, and that both qualitative and quantitative sources of uncertainty should be addressed.

There is no doubt in my mind that for those interested in environmental valuation methodology, *Valuation and the Environment* is a much better choice than Professor Croppers book from the same publisher. However, the editors have allowed for one major weakness. The contributors to *Valuation and the Environment* all implicitly or explicitly subscribe to the point of view that the environmental problem is essentially a social construct. This fits the message of the book that good procedures and institutional arrangements and compromises will lead to adequate solutions for environmental problems. There is a school of economic thought that disagrees with this point of view. Representatives thereof are H. Daly and R. Hueting. In their view environmental problems have an essentially objective character. The difference between these two schools of thought may be illustrated with an example relating to fish stocks. There is an EU policy pertinent to fish stocks. It may be argued to be quite good as to procedures, institutional arrangements and making compromises. However, it has not prevented the collapse of a number of fish populations in the Northern Atlantic and the North Sea. Objectivists such as Daly and Hueting would argue that this illustrates the point that many environmental problems are essentially in the realm of the physical world. And whether such environmental problems are solved is in the last resort not determined by procedural and institutional arrangements or compromises, but by what actually happens 'in the field.' It is a pity that the editors of *Valuation and the Environment* have not allowed for contributions from the 'objectivist school,' which has its own preferred tools for environmental valuation. A lively debate between the social contructivists editors and the objectivists would have made *Valuation and the Environment* even more interesting.

Lucas Reijnders

Jos van Hezewijk and Marcel Metze, *XXL: De macht, het netwerk, de prestaties en de wereld van de Nederlandse topmanagers*, SUN, Nijmegen, 1998. 304 p, NLG 39.50 (ISBN 9 061 68643 1)

Van Hezewijk van Metze, with quite a reputation of 'disclosure journalism' on corporate behaviour, pretend to offer the reader a sketch of the relationship between top-management and corporate excellence of the top-100 enterprises in the Netherlands. They introduce two interesting criteria as a frame of reference: group equity *versus* shareholders' equity (p.6). However, elsewhere they introduce another criterion: competitors' performance in the market (p.265), a criterion which is not clearly related with the two other criteria. Nevertheless, based on the three criteria mentioned they produce a ranking of enterprises in a fourfold description: juniors (in terms of the Amsterdam Stock Exchange), seniors, multinationals, and losers. Or, to put it simply, the financial and publishing companies are the winners, transport and distribution firms are the losers. Put differently, what we have here is Achmea, ABN AMRO, Shell and Dutch Steel against Dutch Railways, Nedlloyd, and KLM. However, in the book the last mentioned firm has two faces: that of a loser (p.163) and a promising one (p.267), a contrast which may illustrate the lack of consistency of the book.

The juniors are the missionary companies, with two extreme positions (KPN and Baan), with ASML somewhere in the middle. The seniors are the adapters: Ahold, Dutch Steel, and Delta Lloyd. The multinationals seem to be a sort of ‘dying elephants’: Shell, Philips, and Unilever are presented as bureaucracies trying to react flexibly to the outside world while changing their inside world. Shell turned out to be a learning bureaucracy (or: a ‘dancing elephant,’ according to Rosabeth Moss Kanters’ book from 1989), because of the Brent Spar issue which was due to the ‘technological arrogance’ of this multinational. As a matter of fact the authors introduce a fourth criterion here, which may be called stakeholders’ equity or, as former Shell top-manager Cor Herkströter described it: ‘profitability, societal acceptance and sustainability’ (inaugural address, University of Amsterdam, October 1999). Indirectly, the authors underline a new trend in companies’ policy: social accountability. But, unfortunately, a link with other themes of the book (change of power and the dynamics of networks), is not elaborated on. So, at the end the reader is rather confused by all the facts and figures, without a clear analysis of the data. On the one hand, one is left with a static picture in the old-fashioned ‘old boys’-network style, whereas on the other hand there remains a challenging – but still unsatisfactory – description of new trends in business strategy and issues of public debate. Next to the market, there is society, that is the message of the book. But, given that outcome, what can be said exactly about corporate performance, and according to which criteria? From that it is still a long way to corporate excellence.

Wout L. Buitelaar

UIT DE ECONOMIST VAN 1900

FROM DE ECONOMIST IN 1900

Na een eerdere uiteenzetting van het stelsel der Engelsche Ongevallenwet (de Worker's Compensation Act) wenschen wij daartegenover te plaatsen het stelsel onzer eigene wet (...).

Men heeft – en terecht – onze regeling niet alleen centralistisch, maar ook bureaucratisch en monopolistisch genoemd. De afdoening van quaesties omtrent uitkeeringen bij ongevallen wordt in handen gesteld van een bureau, van de drie leden, die het bestuur der Rijksbank vormen, den agent gehoord. De werkgever blijft er buiten: hij heeft alleen inlichtingen te verschaffen en te betalen; de werkman (getroffene) krijgt meedeeling van de genomen beslissing en kan reclameeren.

En monopolistisch is onze regeling, wijl zij naast de officieele Rijksbank geen andere organisatie, naast de wettelijke voorziening geen 'contracting out', noch ook een 'bedrijfsvereeniging' of wat ook duldt. (...)

In Engeland het stelsel der gereglementeerde vrijheid: binnen de perken der wet zijn werkgever en werkman na het ongeval vrij in de bepaling der uitkeering; vrij zijn zij, binnen zekere grenzen, in de keus van hem, aan wien zij hij verschil de beslissing willen opdragen; (...)

Welk van die twee de voorkeur verdient? Het onze heeft de begeerde zekerheid; het Engelsche kweekt mannen.

Tegenover de zekerheid, die ons stelsel geeft, staat een ernstig bezwaar: (...) het wekt èn bij werkgevers èn bij werk-

For the sake of comparison with the previously explained operation of the English Worker's Compensation Act, we would like to discuss the system provided for by the corresponding Act under Netherlands legislation. (...)

Our regulation has been labelled – appropriately – not only as centralistic, but also as bureaucratic and monopolistic. The settlement of issues concerning compensation in the event of accidents is entrusted to an agency, after the agent of the three members making up the board of the State Bank has been heard. The employer is not involved at all. He only needs to furnish information and see to payment of the compensation. The employee (the victim) is informed of the decision made, upon which he may lodge a complaint.

And monopolistic our regulation is indeed, allowing no other organisation besides the official State Bank, no 'contracting out' besides the statutory provision, no 'industrial insurance board' or whatsoever. (...)

The English system is one of regulated freedom: within the bounds of the law, employer and employee are free to determine the compensation to which a victim is entitled after an accident; they are also free, within bounds, in selecting the person to whom they wish to assign the decision should their opinions differ. (...)

Which of the two is to be preferred? Ours assures us of the coveted security;

lieden den noodlottigen waan dat zij zelven niet hun plichten zullen vervullen, hun rechten kunnen uitoefenen, tenzij dan dat de Staat hen leide.

H. Smissaert,
Een Engelsche en een Nederlandsche ongevallenwet,
blz. 257–274

the English system breeds men. Despite the security inherent in our system, there is one serious drawback: (...) It leads both employers and employees to be under the ill-fated misapprehension that they will not do their duties or be able to exercise their rights, if not guided by the State.

H. Smissaert,
An english and dutch worker's compensation act
pp. 257–274
(translated by J.F.B. Collens)