achieved by cooperation, and the games played here display that notorious property. The book then moves on to repeated interactions, and the possibilities of achieving cooperative results from non-cooperative play by using trigger strategies. The last main chapter considers the issue of time-consistency in the context of repeated games.

The authors work carefully and systematically through the analysis of these models. They examine the effects of a variety of shocks, hitting countries symmetrically and asymmetrically, and policy responses to them, under various assumptions about cooperation and exchange rate determination. One assumption is that each country controls its own money supply, taking the other's as given (the free-float model), another that one country adjusts its money supply assuming that the other will maintain a fixed exchange rate (the EMS model). The discussion of games with three and more players draws attention to the several results that cooperation between two governments may prove counter-productive, initially due to Rogoff and others. For example, inflationary monetary policy in a single country is restrained by its exchange rate consequences, whereas inflationary monetary policy in both countries (in a world of just two countries) has no effects on the exchange rate and looks more attractive, in the short term. The consequence of cooperative monetary policy by two governments is more inflation, and everyone ends up worse off. (The other players in these games are agents in the private sectors of these economies.)

While the book will be excellent as a coherent exposition and summary of the theoretical economic literature on monetary policy in interdependent economies which has been generated since the mid 1980s, it also makes very plain the limitations of that literature. The literature is taxonomic. The book enumerates the possibilities but there are few indications of which are realistic or at least plausible descriptions of actual behaviour. The analysis is based on an aggregate macroeconomic model which does not have explicit microeconomic foundations, and which therefore leaves open many questions about the validity of welfare conclusions based upon it. All this invites further research, for which this book provides a good point of departure.

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Exchange Rate Targets and Currency Bands. Edited by KRUGMAN (P.) and MILLER (M.). (Cambridge and New York: Cambridge University Press, 1991. Pp. xxii + 247. £30.00, $49.95 hardback. ISBN 0 521 41533 0.)

The cases of monopoly and perfect competition were thoroughly developed long before the recent spurt in oligopoly theory started. In the same way, international monetary economics traditionally covered the two extremes of fixed and flexible exchange rates, but had no well-developed model for intermediate cases. This pathbreaking volume by Paul Krugman and Marcus Miller collects the first generation of papers which formally model such intermediate arrangements as target zones, the gold standard, and the EMS.

The new area exploits a number of results from continuous-time stochastic processes to solve for the behaviour of the exchange rate within a (partly or fully) credible band, and at the time of a collapse.

The basic model of a fully credible target zone was developed by Krugman. Assuming that the fundamentals, say velocity, follow a Brownian motion, then the rational expectations solution to the monetary model implies that the exchange rate inherits this Brownian motion. Suppose that the fundamental can be regulated at some prespecified boundaries through changes in the domestic credit, then the exchange rate stays within a band as well. More interesting, due to the forward-looking nature of the model and the no-arbitrage condition, it follows that the exchange rate approaches the margins in a smooth, S-shaped manner. The clear exposition by Krugman in the introductory essay drives home the basic insights into the effects of a target zone. The other papers in the volume build on and extend the basic model. The extensions concern more elaborate stochastic processes for the fundamentals, stochastic process switching and speculative attacks in case of limited reserves. For example, the model is still solvable with intramarginal and sizeable interventions, such as are exercised within the EMS, in combination with limited reserves causing recurrent realignments. The reverse situation, whereby the exchange rate enters a target zone under prespecified conditions, is also studied. The anomalous prediction of the gold-standard paradox, which arises when the fundamental contains a one-way drift term and the speculative attack takes place in the direction opposite to the direction of the drift, is thoroughly investigated. In a perceptive comment Maurice Obstfeld argues that the zone is unsustainable even as a temporary equilibrium, because the present value relation does not hold if the zone would be temporarily viable. The final paper develops the econometrics and presents some estimates of the target zone model. The book thus provides a balanced and complete analysis of target zones.

The empirical work by Gregor Smith and Michael Spencer points the way to future research. This final paper nicely shows how the recently developed method-of-simulated-moments can be usefully applied in this area. Another nice feature of this paper is that knowledge of a structural relationship is not presumed. Given the unit root property of exchange rates this enhances the robustness of the results. Nevertheless, the empirical results also show that some important features of flexible and managed exchange rates are missed.

Apart from the martingale nature of exchange rates there are two other important empirical regularities. Exchange returns exhibit clusters of volatility and the unconditional distribution is fat tailed. As it turns out, Brownian motion and its variations discussed in the volume are unable to capture these facts. This shows up when the simulations with the theoretical model are compared with real data. There is a sharp contrast between the ARCH tests and the kurtosis on basis of the actual and the simulated data. Other studies trying to test non-parametrically for the hypothesised S-effect have not been very successful either. The problem is that the S-effect is swamped by the fat tail phenomenon. In order to display these stylised facts, it may therefore be easier to work in discrete time. In fact, this is almost what happens in the estimation process when one simulates a discrete-time random walk. Interestingly, the paper by Buiter and Grilli on the gold-standard paradox contains a subsection in which the discrete-time analogue of the model is developed. For empirical reasons it may be worthwhile to develop this line of research further, notwithstanding the theoretical beauty and appeal of the continuous-time approach.

In summary, this book has set the trend for a whole new area of research, and is strongly recommended to researchers and students of managed exchange rates. It provides the first theoretically convincing model of the behaviour of the exchange rates within a band. A number of important extensions are considered, and the econometric issues are dealt with as well.

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External Constraints on Macroeconomic Policy: The European Experience. Edited by ALOGOSKOUFIS (GEORGE), PAPADEMOS (LUCAS) and PORTES (RICHARD). (Cambridge and New York: Cambridge University Press, 1991. Pp. xxi+384. £35.00, US $59.50 hardback. ISBN 0 521 40527 0.)

International Economic Policy Co-ordination. Edited by CARRARO (CARLO), LAUSSEL (DIDIER) and SALMON (MARK). (Oxford and Cambridge, Mass.: Blackwell, 1991. Pp. viii+280. £45.00 hardback. ISBN 0 631 17452 4.)

Globalisation of financial markets and integration of world economies provide the background to both of these conference volumes. In each case, also, a representative selection of some of the world's best macro/international economists is featured in contributions to what must have been extremely productive conferences.

The first volume focuses on the ways in which the external economic environment impinges upon economic policy, with special reference to European countries. It has, therefore, a distinctly empirical bias. The second concentrates upon the theoretical issues associated with coordinating macroeconomic policies at the international level – a topic which has had a good airing since it became flavour of the month in the mid-1980s (following the coordination initiatives of the Plaza Agreement and the Louvre Accord).

My general impression of the first volume is that there is a great deal of interesting information in it but, somehow, the question posed for the conference was a little artificial. All individuals, firms, and countries have to operate in the world market environment in which they find themselves. That environment is a constraint on their behaviour...so what? Some authors interpreted the question as being about whether nations could go bankrupt, or whether external finance would be available for virtually any volume of foreign borrowing. Others interpreted the question as being a call for a case study in the balance of payments history of a specific country. France, Germany, the UK, Holland, Greece, Spain, and Denmark are all represented.

All of the papers in this volume are readable and interesting. I will single