

PREFACE

This book originates from my years of teaching economic dynamics at McGill University and the Australian National University. I have found that most students would like to be exposed to a wide variety of dynamic game models, with applications to various fields of economics.

This book is intended to present a broad picture of dynamic games in economics. As a result, I deliberately avoid dealing with issues that would appear excessively technical for most graduate students and for economists with a general PhD training in economics. Those who prefer reading treatments of the subject at a higher level of formalism should consult graduate-level textbooks or treatises, such as Dockner *et al.* (2000), *Differential Games in Economics and Management Science*, or Başar and Olsder (1995), *Dynamic Noncooperative Game Theory*.

A decade has passed since the publication of Dockner *et al.* (2000). While the present work refers to quite a number of articles published between 2000 and 2010, it is not meant to be an update on that volume. The two volumes are complements, not substitutes. This work is also a complement to Jørgensen and Zaccour (2004), *Differential Games in Marketing*.

A good friend of mine, the late Jean-Jacques Laffont, told me a memorable story. In writing his books, *Fundamentals of Public Economics*, and *The Economics of Information and Uncertainty*, he faced an “adverse selection” problem: among many good papers and models that deal with the same subjects, which ones should he select for a detailed exposition? He decided to take the risk of appearing biased toward articles of which he was either an author or a co-author, one of the reasons being that he had a comparative advantage in explaining them. I have taken the same risk, for the same reasons. Naturally, in a survey, one must be selective: one cannot give equal treatments to equally good papers. Like a tour guide, I allocate more time (and space) to articles that I think the readers would find interesting and yet not too hard to grasp.

While the actual preparation of this book took about 18 months, it is not an exaggeration to say that its gestation period is more than

three decades. During my journey, I have benefited from discussions with many friends and co-authors. They have reinforced my interest in economic modelling, dynamic optimization, and dynamic games. I would like to thank Francisco Alvarez-Cuadrado, Jean-Pierre Amigues, Venkatesh Bala, Sanjay Banerji, Joydeep Bhattacharya, Hassan Benchenkroun, Richard A. Brecher, Edwin Burmeister, Jim Cassing, Carl Chiarella, Richard Cornes, Engelbert Dockner, Charles Figuières, Bruce Forster, Kenji Fujiwara, Gérard Gaudet, John M. Hartwick, Horst Herberg, Arye Hillman, Nguyen Manh Hung, Steffen Jørgensen, Larry Karp, Seiichi Katayama, Murray C. Kemp, Toru Kikuchi, Pierre Lasserre, Jean-Jacques Laffont, Didier Laussel, Daniel Léonard, Xiao Luo, Richard Manning, Stephanie McWhinnie, Michel Moreaux, Kazuo Nishimura, Koji Okuguchi, Hiroshi Ohta, John Pitchford, Horst Raff, Ray Rees, Ray Riezman, Koji Shimomura, Horst Siebert, Hans-Werner Sinn, Gerhard Sorger, Antoine Soubeyran, Raphaël Soubeyran, Frank Stähler, Hideo Suzuki, Haru Takahashi, Makoto Tawada, Mabel Tidball, Binh Tran-Nam, Stephen Turnovsky, Neil Vousden, and Kar-Yiu Wong.

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