

# Preface

The models and the discussion presented in this book focus on two important foundations in economics: the interdependence within the economic activity and the desire to come to a state of economic balance (equilibrium). Perhaps the state of economic balance will not be achieved in practice, but it is essential that the economic system possesses a strong mechanism to achieve it. Equilibrium, in that sense, can be described as a “moving target” in economics.

In a changing world, it is essential to be competitive. To reach competitiveness, we must be prepared for a challenge. This challenge cannot be met in a state of rest; there is always a demand for continuous change, i.e., economic transformation. With no transformation, the economy will become stagnant, and in the longer run, a fall in the long-term growth will be observed. With the help of economic models of industrial structure and transformation, this situation can perhaps be avoided. This book is a presentation and discussion of these kinds of models.

This book consists of eight chapters. It contains an accessible analytical survey of economic equilibrium models, including multi-sector programming models (linear and quadratic) and the computable general equilibrium (CGE) model. The presentation is focused on the theoretical and applied structure of these models. In addition, the importance of disinvestment activities is emphasised by the presentation of a specific equilibrium model of economic transformation. Finally, the globalisation process of the production system is put in focus.

The idea for this book arose when I was working with the lectures in my course in applied equilibrium models. The purpose is to provide an interesting and understandable analytical framework for applied equilibrium models of structure and transformation, and also provoke a curiosity of further development in the field.

This book is directed primarily to advanced undergraduate and beginning graduate students. Whilst the text of this book is couched in mathematical terminology, the level of the mathematics is easy to grasp. In other words, the equilibrium models and the experiments introduced in this book are presented using convenient and reliable techniques in order to facilitate an easy understanding of the subject. Thus, the intention is to provide a clear and lucid interpretation of techniques and applications.

The CGE model presented and used in this book is distributed with the GAMS computer system. The unlicensed GAMS distribution is available on the Internet free of cost. Thus, with the access to a computer, the reader can take part in the CGE computations presented here.

I am indebted to colleagues and my students, graduate and undergraduate, for helpful comments when writing the proposal, whose response has guided the organisation of this book. Different versions have been suggested and used in my teaching. The students' encouragement has been just as important as their criticism. I would also like to thank Thomas Quayle for his skilful and diligent review of my English. Finally, I also wish to express my gratitude to the publisher for the edition of this book. Of course, the usual disclaimer should be added absolving all of these from any responsibility for errors and opinions expressed herein.

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