## General Equilibrium, Growth, and Trade

Essays in Honor of Lionel McKenzie

#### Edited by JERRY R. GREEN

DEPARTMENT OF ECONOMICS
HARVARD UNIVERSITY
CAMBRIDGE, MASSACHUSETTS

#### JOSÉ ALEXANDRE SCHEINKMAN

DEPARTMENT OF ECONOMICS
UNIVERSITY OF CHICAGO
CHICAGO, ILLINOIS



### **CONTENTS**

List of C Preface	ontributors	xi xv
Introd	ICTION R. GREEN AND JOSÉ ALEXANDRE SCHEINKMAN	1
	References	8
	Part 1 GENERAL EQUILIBRIUM	
	uously Dispersed Preferences, Regular ence-Endowment Distribution, and Mean Demand Function	
AKIR	A YAMAZAKI	
• • •	Introduction	13
	Model and the Statement of Results Proofs	14 20
3.	References	23
	yment Policies for the Multiperiod Monopolist – Monopsonist mplications for Macroeconomic Control	
JOHN	P. BONIN	
I.	Introduction	2:
II.	The Model of the Multiperiod Monopolist-Monopsonist	2

VI		CONTENTS
IV.	Optimal Input Policies The Sensitivity of Optimal Policies to Price Parameters Conclusion: Disequilibrium Comparative Statics	29 34
	and Macroeconomic Policy References	38 40
		.0
A Stab	le Price Adjustment Process	43
ANJAN	NMUKHERJI	
	References	49
	Adjustment in a Competitive Market and the Securities nge Specialist	
JAME	S BRADFIELD AND EDWARD ZABEL	
I.	Introduction	51
II.	<b>6</b>	53
III.	The Specialist's Activities and Security Prices Price Variability	58 66
V.		70
VI.	•	71
	Appendix. Verification of Optimal Behavior References	72 76
An Ini	inite Horizon Model with Money	
CHAR	LES WILSON	
	The Individual Agents	81
	A Characterization of Maximal Sequences	85
	Equilibrium The Existence of Equilibrium and Equivalent	90
	Government Policies	94
	Conclusion	103
	References	104
Consu	mption under Uncertainty	105
SANF	ORD GROSSMAN, DAVID LEVHARI, AND LEONARD J. MIRMAN	
	Appendix	121
	References	123

:

	•••
CONTENTS	VII
CONTENTS	·

Balanced Outcome Functions Yielding Walrasian and Lindahl Allocations at Nash Equilibrium Points for Two or More Agents	
LEONID HURWICZ	
<ol> <li>The Nash-Walras Equivalence for Two or More Agents</li> <li>The Nash-Lindahl Equivalence for Two or More Agents References</li> </ol>	126 134 136
Stochastic Stability of Market Adjustment in Disequilibrium	
W. HILDENBRAND AND R. RADNER	
<ol> <li>Introduction</li> <li>The Stochastic Stability Theorem References</li> </ol>	139 141 149
Identifiability of the von Neumann-Morgenstern Utility Function from Asset Demands	151
JERRY R. GREEN, LAWRENCE J. LAU, AND HERAKLIS M. POLEMARCHAKIS	
References .	160
Part 2 GROWTH	
An Integration of Stochastic Growth Theory and the Theory of Finance, Part I: The Growth Model	
WILLIAM A. BROCK	
<ol> <li>Introduction</li> <li>The Optimal Growth Model         Appendix. Section 2         References     </li> </ol>	165 167 179 190
Fair Division of a Random Harvest: The Finite Case	
DAVID GALE AND JOEL SOBEL	
<ol> <li>Introduction</li> <li>Preliminary Simplifications</li> </ol>	193 195

viii		CONTENTS
3.	The Kuhn-Tucker Theorem	196
4.	Proof of the Main Theorem References	196 198
	cterizing Inefficiency of Infinite-Horizon Programs smooth Technologies	
LAWR	ENCE M. BENVENISTE AND TAPAN MITRA	
1.	Introduction	199
2.	The Model	201
3.		202
	Complete Characterizations in Smooth Technologies	206
	Partial Characterizations in Golden-Rule Technologies	208
6.	A Special Case of Flats and Kinks References	212 215
Notes	on Comparative Dynamics	
ALOIS	SIO P. DE ARAUJO AND JOSÉ ALEXANDRE SCHEINKMAN	
1.	Introduction	217
2.	The Model	218
3.	A General Result	221
	A Result Involving Diagonal Dominance	222
5.	A Further Remark .	225
	References	225

# A Unified View

#### DAVID CASS AND MUKUL MAJUMDAR

I.	Introduction and Summary	227
Π.	Fundamental Support Properties	229
III.	General Growth Model	233
IV.	Characterization of Efficiency	235
٧.	Efficiency and Consumption-Value Maximization	240
VI.	Optimality (or Consumption-Value Maximization)	
	and Capital-Value Transversality	244
VII.	Complications from Primary Factors	246
VIII.	Alternative Notions of Optimality	251
	Appendix A	254
	Appendix B	258
	References	271

CONTENTS ix

#### Part 3 TRADE

The Tl	neory and Application of Trade Utility Functions	
JOHN	S. CHIPMAN	
1.	Introduction	277
2.	Definitions and Preliminary Results	278
3.	The Trade Utility Function	282
4.	The Trade Demand Correspondence	285
5.	The Case of a Differentiable Trade Demand Function	289
6.	Treatment in Terms of Inverse Demand Functions References	290 294
A Mod	lel of Trade and Unemployment	
KAME	AN NOMAN AND RONALD W. JONES	
1.	Introduction	297
II.	Preliminary Models	300
	Production Relationships	301
IV.	Real Expenditure and the Demand for Nontradables	303
V.	A Fall in the Wage Rate	306
	Currency Devaluation	310
	Long-Run Adjustments	313
VIII.	Concluding Remarks	320
	References	321
	ropositions on the Global Univalence of Systems	
of Cos	t Function	
ANDF	REU MAS-COLELL	
I.	Introduction and Statement of Results	323
II.	Proofs	327
	References	330
	ne Concepts of Factor Intensities and the Relation en Commodity Prices and Factor Rewards	
	O UEKAWA	
1.	Introduction	333
2.		335
	The Concepts of Factor Intensities	338
4.	·	344
	References	345

X CONTENTS

#### Factor Price Equalization with More Industries Than Factors

#### TROUT RADER

1.	Introduction	347
2.	Definitions	348
3.	Three Theorems	349
4.	Examples and Conclusions	352
	References	353

## The General Equilibrium Framework of Economic Analysis: Stocks and Flows—with Special Application to Macroeconomic Models

#### JOHN Z. DRABICKI AND AKIRA TAKAYAMA

1.	Stocks and Flows	351
И.	The Framework of Macroequilibrium	373
III.	A Historical Note	379
	References	398