

Contents

Part I Optimal Economic Growth with an Environmental Constraint

The Problem of Optimal Endogenous Growth with Exhaustible Resources Revisited	3
Sergey Aseev, Konstantin Besov, and Serguei Kaniovski	
Optimal Pollution, Optimal Population, and Sustainability	31
Ulla Lehmijoki	
Optimal Proportions in Growth Trends of Resource Productivity	49
Alexander Tarasyev and Bing Zhu	

Part II Biodiversity, Abatement and Climate Change

International Biodiversity Management with Technological Change	69
Tapio Palokangas	
Environmental Regulations, Abatement and Economic Growth	87
Elke Moser, Alexia Prskawetz, and Gernot Tragler	
Optimal Control of Growth and Climate Change—Exploration of Scenarios	113
Helmut Maurer, Johann Jakob Preuß, and Willi Semmler	

Part III Dynamics of Environmental Policy with an Oligopoly

Market Power, Resource Extraction and Pollution: Some Paradoxes and a Unified View	143
Luca Lambertini and George Leitmann	
The Incentive to Invest in Environmental-Friendly Technologies: Dynamics Makes a Difference	165
Davide Dragone, Luca Lambertini, and Arsen Palestini	

Part IV Applications of Dynamic Systems to Energy Supply

Utmost Fear Hypothesis Explores Green Technology Driven Energy for Sustainable Growth 191
Chihiro Watanabe and Jae-Ho Shin

Transition Towards Renewable Energy Supply—A System Dynamics Approach 217
Bo Hu, Armin Leopold, and Stefan Pickl

Green Growth and Sustainable Development

Crespo Cuaresma, J.; Palokangas, T.; Tarasyev, A. (Eds.)

2013, XII, 228 p., Hardcover

ISBN: 978-3-642-34353-7