

# Innovation Dynamism and Economic Growth

A Nonlinear Perspective

---

**Masaaki Hirooka**

*Institute of Technoeconomics, Kyoto, Japan*

**Edward Elgar**

Cheltenham, UK • Northampton, MA, USA

# Contents

---

<i>Preface</i>	vii
<i>Acknowledgments</i>	ix
1. Nonlinear dynamism of innovation: executive summary	1
<b>PART I DIFFUSION OF INNOVATION AND ECONOMIC GROWTH</b>	
2. Dynamics of product diffusion and economic development	33
3. Kondratiev business cycles and innovation dynamism	51
4. Sequence of bubble, crash and depression	79
5. Trunk innovations and institutional change	89
<b>PART II DYNAMICS OF TECHNOLOGICAL DEVELOPMENT AND EMERGENCE OF NEW INDUSTRIES</b>	
6. Technological development and the innovation paradigm	127
7. Comprehensive description of the innovation paradigm and the role of the development trajectory	165
8. National systems of innovation and industrial competitiveness	190
9. Technology fusion and the evolution of innovation paradigms	234
<b>PART III NONLINEAR DYNAMICS OF INNOVATION AND KNOWLEDGE TRANSFER</b>	
10. Knowledge transfer and complexity in innovation systems	279
11. Technology foresight and long-term perspectives	314
<b>PART IV NEW INSIGHT INTO THE ECONOMICS OF TECHNOLOGICAL CHANGE</b>	
12. Nonlinear dynamics of economic development	365
<i>Bibliography</i>	389
<i>Index</i>	417