## Contents

**List of Figures**

List of Tables  xvii

Foreword  xix

Contributors  xxiii

Introduction  1

Richard Blundell, Estelle Cantillon, Barbara Chizzolini, Marc Ivaldi, Wolfgang Leininger, Ramon Marimon, Laszlo Matyas and Frode Steen

The COEURE Project  2

Advances in Economic Research: Foundations for European Policies  2

About the Chapters  4

The Relevance of Data and Methods  23

Acknowledgements  28

Notes  28

1 Innovation and Growth: The Schumpeterian Perspective  29

Philippe Aghion and Ufuk Akcigit

1.1 Introduction  29

1.2 Looking for Growth Paradigms to Think about Growth Policy  30

1.2.1 The Neoclassical Growth Model  31

1.2.2 The AK Model  31

1.2.3 The Product-Variety Model  32

1.2.4 The Schumpeterian Model  33

1.3 Some Main Applications and Extensions of Schumpeterian Growth Theory  35

1.3.1 Growth Meets IO  35

1.3.2 Schumpeterian Growth and Firm Dynamics  37

1.3.3 Growth Meets Development: Appropriate Institutions  38

1.3.4 Growth Meets Development: Firm Dynamics in Developing Countries  40

1.3.5 Growth and Unemployment  42

1.4 Enhancing Productivity Growth in Advanced Countries  43

1.4.1 Pillars of Innovation-Led Growth  43

1.4.2 Competition Policy against Industrial Policy  45
Contents

1.4.3 Reforming the State 47
1.4.4 Macroeconomic Policy 48
1.4.5 Innovation, Inequality, and Social Mobility: Making Growth Inclusive 48
1.5 Technological Waves and the Debate on Secular Stagnation 51
1.5.1 The Debate 51
1.5.2 Historical Wave Patterns 52
1.6 Schumpeterian Insights into R&D Policy 54
1.6.1 R&D Policies and Firm Selection 55
1.6.2 Basic versus Applied R&D 56
1.7 The Role of Freedom and Openness in the Innovation Process 59
1.7.1 The ADS Framework and the Role of Academic Freedom 59
1.7.2 Freedom and Openness 61
1.7.3 Evidence on the Limits of IP and the Role of Openness and Freedom 61
1.8 Towards a New Growth Pact in Europe 62
1.8.1 Structural Reforms and the Role of Structural Funds 62
1.8.2 Rethinking Industrial Policy in the EU 64
1.8.3 More Flexible Macroeconomic Policies at EU Level 65
1.9 Conclusion 66
Acknowledgements 67
Notes 67
References 69

2 European Union Dual Labour Markets: Consequences and Potential Reforms 73
JUAN J. DOLADO
2.1 Introduction 73
2.2 The Emergence of Dual Labour Markets in Europe 74
2.3 Temporary Contracts: Stepping Stones or Dead Ends? 77
2.4 Dual Labour Markets Before and After the Great Recession 80
2.5 Lessons from Spain 84
2.6 Dual Labour Markets and Youth Unemployment 88
2.7 How to Dismantle Dual Employment Protection Legislation 91
2.7.1 Recent EPL Reforms 91
2.7.2 Single/Unified Contracts in Theory 93
2.7.3 Single/Unified Contracts in Practice 100
2.8 Conclusions 104
Acknowledgements 105
Appendix 105
Notes 108
References 109

3 Population, Migration, Ageing and Health: A Survey 113
CHRISTIAN DUSTMANN, GIOVANNI FACCHINI AND CORA SIGNOROTTO
3.1 Introduction 113
3.2 Main Stylized Facts 114
3.3 Migration and Demographic Developments 117
3.3.1 The Selection Hypothesis 120
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3.2 The Adaptation Hypothesis</td>
<td>121</td>
</tr>
<tr>
<td>3.3.3 The Disruption Hypothesis</td>
<td>123</td>
</tr>
<tr>
<td>3.4 Permanent versus Temporary Migration</td>
<td>124</td>
</tr>
<tr>
<td>3.4.1 Why Do Migrants Return?</td>
<td>125</td>
</tr>
<tr>
<td>3.4.2 Who Are the Return Migrants?</td>
<td>126</td>
</tr>
<tr>
<td>3.5 The Fiscal Effect of Immigration</td>
<td>128</td>
</tr>
<tr>
<td>3.5.1 Static Frameworks</td>
<td>129</td>
</tr>
<tr>
<td>3.5.2 Dynamic Models</td>
<td>130</td>
</tr>
<tr>
<td>3.6 Migration and Skill Shortages</td>
<td>132</td>
</tr>
<tr>
<td>3.7 International Migration and the Health Care Sector</td>
<td>136</td>
</tr>
<tr>
<td>3.7.1 International Migration of Health Care Professionals</td>
<td>136</td>
</tr>
<tr>
<td>3.7.2 International Migration of Old Age Carers</td>
<td>139</td>
</tr>
<tr>
<td>3.7.3 Immigrants’ Demand for Health Care</td>
<td>141</td>
</tr>
<tr>
<td>3.8 The Floridization of Europe: Old Age North–South Migration</td>
<td>143</td>
</tr>
<tr>
<td>3.8.1 Determinants of Old Age Migration</td>
<td>144</td>
</tr>
<tr>
<td>3.8.2 Effects on Host Country Economy</td>
<td>145</td>
</tr>
<tr>
<td>3.9 Conclusions</td>
<td>146</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>147</td>
</tr>
<tr>
<td>Appendix</td>
<td>147</td>
</tr>
<tr>
<td>Notes</td>
<td>148</td>
</tr>
<tr>
<td>References</td>
<td>149</td>
</tr>
</tbody>
</table>

### 4 Education Systems: Assignment, Admissions, Accountability and Autonomy

**Simon Burgess**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Introduction</td>
<td>159</td>
</tr>
<tr>
<td>4.1.1 What Can Economics Contribute to the Study of Education?</td>
<td>161</td>
</tr>
<tr>
<td>4.2 The Aims of Education: Rates of Return, Inequality and Social Mobility</td>
<td>161</td>
</tr>
<tr>
<td>4.3 Education Systems: Assignment, Admissions, Accountability and Autonomy</td>
<td>164</td>
</tr>
<tr>
<td>4.3.1 Assignment Mechanisms</td>
<td>164</td>
</tr>
<tr>
<td>4.3.2 Accountability, Autonomy and Regulation</td>
<td>175</td>
</tr>
<tr>
<td>4.3.3 Education Market Structure: Policy Summary</td>
<td>185</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>185</td>
</tr>
<tr>
<td>Notes</td>
<td>186</td>
</tr>
<tr>
<td>References</td>
<td>186</td>
</tr>
</tbody>
</table>

### 5 Competition and Regulation in Markets for Goods and Services: A Survey with Emphasis on Digital Markets

**Nikolaos Vettas**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Introduction</td>
<td>194</td>
</tr>
<tr>
<td>5.2 A View on Competition Policy Developments in Europe</td>
<td>199</td>
</tr>
<tr>
<td>5.2.1 Competition Policy: The General Context</td>
<td>199</td>
</tr>
<tr>
<td>5.2.2 Digital Trade and Online Markets</td>
<td>200</td>
</tr>
<tr>
<td>5.2.3 Some Recent Competition Cases</td>
<td>203</td>
</tr>
<tr>
<td>5.2.4 Online Travel Agencies and MFNs</td>
<td>207</td>
</tr>
<tr>
<td>5.2.5 The Digital Single Market Initiative</td>
<td>208</td>
</tr>
<tr>
<td>5.2.6 Distinguishing Features of Digital Markets</td>
<td>209</td>
</tr>
</tbody>
</table>
Contents

5.3 Approaches in Industrial Organization 210
  5.3.1 Pricing 211
  5.3.2 Vertical Relations 213
5.4 Recent Research on Competition Issues Related to Digital Markets 216
5.5 Challenges for Research on Competition Issues in Digital Markets 223
5.6 Conclusion 227
  Acknowledgements 228
  Notes 228
  References 232

6 Winners and Losers of Globalization: Sixteen Challenges for Measurement and Theory 238
CECÍLIA HORNOK AND MIKLÓS KOREN
6.1 Introduction 238
6.2 Advances in Measurement and Data Challenges 240
  6.2.1 Recent Advances in Measuring the Causes and Effects of Globalization 240
  6.2.2 Data Challenges 245
6.3 Insights from Theories of Globalization 247
  6.3.1 Broad Lessons about the Causes and Effects of Globalization 247
  6.3.2 Insights for Policy 256
  6.3.3 Open Questions 257
6.4 Conclusion 263
  Acknowledgements 263
  Notes 264
  References 264

7 Economic Approaches to Energy, Environment and Sustainability 274
PAUL EKINS, PAUL DRUMMOND AND JIM WATSON
7.1 Introduction 274
7.2 Economic Approaches to the Environment 275
  7.2.1 Environmental and Resource Economics 275
  7.2.2 Ecological Economics 276
  7.2.3 Institutional, Evolutionary, and Behavioural Economics 277
7.3 Sustainability and Sustainable Development 278
  7.3.1 Sustainable Development 278
  7.3.2 Environmental Sustainability 283
  7.3.3 Measurement and Indicators of Sustainable Development and Sustainability 289
7.4 The Energy System and Climate Change Mitigation 292
  7.4.1 Energy Security 292
  7.4.2 Reducing CO₂ Emissions 295
  7.4.3 Financial Requirements and Affordability 295
7.5 Policies for Energy, Climate Change Mitigation and a Green Economy 298
  7.5.1 Standards and Engagement 299
  7.5.2 Information 299
  7.5.3 Markets and Pricing 300
Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.5.4</td>
<td>Strategic Investment</td>
<td>302</td>
</tr>
<tr>
<td>7.5.5</td>
<td>EU Energy and Climate Change Policy: Lessons and Priorities for Research</td>
<td>305</td>
</tr>
<tr>
<td>7.6</td>
<td>The Science-Policy Interface</td>
<td>309</td>
</tr>
<tr>
<td>7.7</td>
<td>Conclusions and Research Priorities</td>
<td>312</td>
</tr>
<tr>
<td></td>
<td>Notes</td>
<td>316</td>
</tr>
<tr>
<td></td>
<td>References</td>
<td>316</td>
</tr>
<tr>
<td>8</td>
<td>Regional Disparities and Efficient Transport Policies</td>
<td>324</td>
</tr>
<tr>
<td>8.1</td>
<td>Introduction</td>
<td>324</td>
</tr>
<tr>
<td>8.2</td>
<td>What Is Spatial Economics About?</td>
<td>325</td>
</tr>
<tr>
<td>8.2.1</td>
<td>Location Does Matter</td>
<td>326</td>
</tr>
<tr>
<td>8.2.2</td>
<td>Moving Goods and People is Still Costly</td>
<td>327</td>
</tr>
<tr>
<td>8.3</td>
<td>The Drivers of Regional Agglomeration</td>
<td>330</td>
</tr>
<tr>
<td>8.3.1</td>
<td>The Home-Market Effect</td>
<td>332</td>
</tr>
<tr>
<td>8.3.2</td>
<td>Agglomeration Economies and the Emergence of Asymmetric Clusters</td>
<td>339</td>
</tr>
<tr>
<td>8.3.3</td>
<td>The Core–Periphery Structure</td>
<td>340</td>
</tr>
<tr>
<td>8.3.4</td>
<td>Input–Output Linkages and the Bell-Shaped Curve of Spatial Development</td>
<td>343</td>
</tr>
<tr>
<td>8.3.5</td>
<td>Communication Costs and the Relocation of Plants</td>
<td>345</td>
</tr>
<tr>
<td>8.4</td>
<td>Does the Market Yield Over or Under-agglomeration?</td>
<td>346</td>
</tr>
<tr>
<td>8.4.1</td>
<td>Does the Home-Market Effect Generate Excessive Agglomeration?</td>
<td>346</td>
</tr>
<tr>
<td>8.4.2</td>
<td>Is the Core–Periphery Structure Inefficient?</td>
<td>347</td>
</tr>
<tr>
<td>8.5</td>
<td>Do EU Interregional Transport Investment Policies Fulfil their Role?</td>
<td>348</td>
</tr>
<tr>
<td>8.5.1</td>
<td>Assessing Transport Investments Using Econometric Models</td>
<td>350</td>
</tr>
<tr>
<td>8.5.2</td>
<td>Assessing Transport Investments Using Model Simulations</td>
<td>351</td>
</tr>
<tr>
<td>8.5.3</td>
<td>Assessing Transport Investments Using Case Studies</td>
<td>353</td>
</tr>
<tr>
<td>8.6</td>
<td>Is the EU Moving to a Better Utilization of Its Existing Transport Policy?</td>
<td>355</td>
</tr>
<tr>
<td>8.6.1</td>
<td>Competition on Diesel Fuel Taxes Leads EU Countries to Revise Their Pricing of Road Freight</td>
<td>355</td>
</tr>
<tr>
<td>8.6.2</td>
<td>Europe Does Not Make the Best Use of Its Rail and Air Transport System</td>
<td>356</td>
</tr>
<tr>
<td>8.7</td>
<td>What Have We Learnt?</td>
<td>357</td>
</tr>
<tr>
<td></td>
<td>Acknowledgements</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>Notes</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>References</td>
<td>361</td>
</tr>
<tr>
<td>9</td>
<td>Skilled Cities and Efficient Urban Transport</td>
<td>366</td>
</tr>
<tr>
<td>9.1</td>
<td>Introduction</td>
<td>366</td>
</tr>
<tr>
<td>9.2</td>
<td>Agglomeration Economies</td>
<td>368</td>
</tr>
<tr>
<td>9.2.1</td>
<td>The Nature and Magnitude of Agglomeration Economies</td>
<td>371</td>
</tr>
<tr>
<td>9.2.2</td>
<td>Cities as Consumption Centres</td>
<td>375</td>
</tr>
</tbody>
</table>
9.3 The Trade-Off between Commuting and Housing Costs
9.3.1 The Monocentric City Model
9.3.2 Why Do Employment Centres Emerge?
9.3.3 Land Capitalisation and Housing
9.3.4 Residential Segregation

9.4 More Cities or Bigger Cities?

9.5 The Organization of Metropolitan Areas

9.6 Managing Traffic and Congestion
9.6.1 External Costs of Urban Transport
9.6.2 The Difficult Road to First-Best Pricing of Congestion
9.6.3 The Patchwork of Policy Instruments
9.6.4 Public Transport Pricing

9.7 The Benefits of New Transport Infrastructure
9.7.1 Does New Infrastructure Reduce Congestion?
9.7.2 The Wider Benefits of Urban Transport Projects and New Developments in Assessment Methods

9.8 Where Do We Stand?

Acknowledgements
Notes
References

10 Fiscal and Monetary Policies after the Crises

CHARLES BRENDON AND GIANCARLO CORSETTI

10.1 Introduction

10.2 The Pre-Crisis Consensus, and Heterogeneity

10.3 The Context and Challenges Posed by the Crisis
10.3.1 Headline Macroeconomic Trends
10.3.2 Market Impairment and the Transmission of Stabilization Policy
10.3.3 The Zero Bound on Nominal Interest Rates

10.4 The Zero Lower Bound: Implications for Stabilization Policy
10.4.1 Savings Decisions and Nominal Interest Rates
10.4.2 Shocks to the ‘Natural’ Rate of Interest
10.4.3 Forward Guidance as a Solution?
10.4.4 Fiscal Stimulus as a Solution?
10.4.5 Central Bank Asset Purchases as a Solution?
10.4.6 The Benefits and Risks of Structural Reform
10.4.7 Empirical Evidence on the ‘Expectations Channel’

10.5 Policies and Diagnoses of the Crisis
10.5.1 What Causes ‘Savings Shocks’?
10.5.2 The Possibility of Secular Stagnation
10.5.3 Dynamic Interactions through the Labour Market
10.5.4 Deflation Traps, Self-Fulfilling Dynamics and Equilibrium Selection

10.6 Risk Sharing and Fiscal Policy in a Monetary Union
10.6.1 Imbalances and Imperfect Risk Sharing
10.6.2 Complete Markets are not a Substitute for Risk Sharing via Transfers
10.6.3 Fiscal Devaluation
11 Financial Regulation in Europe: Foundations and Challenges  
THORSTEN BECK, ELENA CARLETTI AND ITAY GOLDSTEIN  

11.1 Introduction  
11.2 Recent Financial Reforms in Europe  
11.2.1 Capital Requirements  
11.2.2 Liquidity Requirements  
11.2.3 Resolution Framework and Bail-In Instruments  
11.2.4 Banking Union  
11.2.5 Activity Restrictions and Other Reforms  
11.3 Microfoundations for Financial Reforms  
11.3.1 Basic Failures in the Financial System  
11.3.2 Mapping between Basic Failures and the Reforms Enacted in Europe  
11.4 Moving beyond Banks and Traditional Activities: The Regulatory Perimeter  
11.4.1 The Regulatory Perimeter  
11.4.2 Financial Innovation  
11.4.3 Complexity  
11.5 Special Issues in Europe and How they Affect Future Regulation  
11.5.1 Crisis Resolution and Macro-Management in a Monetary Union  
11.5.2 Financial Structure: Does Europe Suffer from a Bank Bias?  

12 Inequality and Welfare: Is Europe Special?  
ALAIN TRANNOY  

12.1 Introduction  
12.2 Inequality and Welfare: Two Interconnected Notions  
12.2.1 Inequality  
12.2.2 Welfare  
12.2.3 Aggregating Welfare  
12.2.4 The Relationship between Inequality and Welfare  
12.2.5 Two Assumptions about Individual Welfare  
12.3 Normative and Positive Issues Involving Several Sciences  
12.3.1 Political Philosophy  
12.3.2 History  
12.3.3 Sociology and Political Science  
12.3.4 Psychology  
12.3.5 Neurosciences: Happiness in the Twenty-First Century  

References