Brief Contents

Preface ix

Acknowledgments xi

Chapter 1 Introduction and Axioms of Urban Economics 1

Part I
MARKET FORCES IN THE DEVELOPMENT OF CITIES 15

Chapter 2 Why Do Cities Exist? 17

Chapter 3 Why Do Firms Cluster? 45

Chapter 4 City Size 70

Chapter 5 Urban Growth 92

Part II
LAND RENT AND LAND-USE PATTERNS 125

Chapter 6 Urban Land Rent 127

Chapter 7 Land-Use Patterns 161

Chapter 8 Neighborhood Choice 202

Chapter 9 Zoning and Growth Controls 230
Part III
URBAN TRANSPORTATION

Chapter 10  Autos and Highways
257

Chapter 11  Urban Transit
290

Part IV
EDUCATION AND CRIME IN CITIES

Chapter 12  Education
317

Chapter 13  Crime
338

Part V
HOUSING

Chapter 14  Why Is Housing Different?
367

Chapter 15  Housing Policy
386

Part VI
LOCAL GOVERNMENT

Chapter 16  The Role of Local Government
411

Chapter 17  Local Government Revenue
431

Appendix  Tools of Microeconomics
455

Index  479
PART I
MARKET FORCES IN THE DEVELOPMENT OF CITIES

Chapter 2  Why Do Cities Exist?  17
   A Region without Cities—Backyard Production  17
   A Trading City  18
       Comparative Advantage and Trade  19
       Scale Economies in Exchange  19
   Trading Cities in Urban History  20
       Trading Cities in World History  20
       Trading Cities in American History  21
   A Factory City  22
       Determining Wages and Prices  22
       The Market Area of a Factory City  23
   The Industrial Revolution and Factory Cities  24
       Innovations in Manufacturing  25
       Innovations in Transportation  26
       Innovations in Agriculture  26
       Energy Technology and Location Decisions  26
   A System of Factory Cities  27
   Resources-Oriented Firms and Processing Cities  29
       Scale Economies and Market Areas  29
       System of Processing Cities  30
       Other Examples of Resources-Oriented Industries  30
   Innovation Cities  31
   Summary  33
   Applying the Concepts  34
   References and Additional Reading  37

Appendix  Location Decisions of Transfer-Oriented Firms  38
   Resource-Oriented Firms  39
   Market-Oriented Firms  40
   The Principle of Median Location  42
   Transshipment Points and Port Cities  43
Chapter 3  Why Do Firms Cluster?

Sharing Intermediate Inputs  47
  Dresses and Buttons  48
  High-Technology Firms  49
  Intermediate Inputs in the Movie Industry  49

Self-Reinforcing Effects Cause Industry Clusters  50
  The Benefits and Costs of Clustering  50
  The Profit Gap and the Size of the Cluster  52

Sharing a Labor Pool  52
  The Isolated Firm  53
  Locating in a Cluster  54
  Expected Profits Are Higher in the Cluster  54
  Labor Pooling in the Movie Industry  55

Labor Matching  55
  A Model of Labor Matching  56
  Agglomeration Economies: More Workers Implies Better Matches  57

Knowledge Spillovers  58

Evidence of Localization Economies  59

Urbanization Economies  60
  Sharing, Pooling, and Matching  60
  Corporate Headquarters and Functional Specialization  60
  Knowledge Spillovers  61
  Evidence of Urbanization Economies  62

Other Benefits of Urban Size  62
  Joint Labor Supply  63
  Learning Opportunities  63
  Social Opportunities  64

Summary  64

Applying the Concepts  64

References and Additional Reading  67

Chapter 4  City Size

Utility and City Size  70
  Benefits and Costs of Bigger Cities  70
  Locational Equilibrium, Land Rent, and Utility within a City  72

A System of Cities  73
  Cities Are Not Too Small  73
  Cities May Be Too Large  75
<table>
<thead>
<tr>
<th><strong>Contents</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specialized and Diverse Cities</strong> 76</td>
</tr>
<tr>
<td>A Model of Laboratory Cities 76</td>
</tr>
<tr>
<td>Example: The Radio Industry in New York 77</td>
</tr>
<tr>
<td>Evidence of Laboratory Cities 77</td>
</tr>
<tr>
<td><strong>Differences in City Size</strong> 78</td>
</tr>
<tr>
<td>Differences in Localization and Urbanization Economies 78</td>
</tr>
<tr>
<td>Local Goods and City Size 79</td>
</tr>
<tr>
<td>Local Employment Amplifies Size Differences 79</td>
</tr>
<tr>
<td><strong>The Size Distribution of Cities</strong> 80</td>
</tr>
<tr>
<td>The Rank-Size Rule 81</td>
</tr>
<tr>
<td>Urban Giants: The Puzzle of Large Primary Cities 82</td>
</tr>
<tr>
<td><strong>Summary</strong> 83</td>
</tr>
<tr>
<td><strong>Applying the Concepts</strong> 84</td>
</tr>
<tr>
<td><strong>References and Additional Reading</strong> 87</td>
</tr>
</tbody>
</table>

**Appendix** Central Place Theory 88

**References** 91

**Chapter 5 Urban Growth** 92

**Economic Growth: Increase in Per-Capita Income** 92

**City-Specific Innovation and Income** 93

Regionwide Innovation and Income 95

**Human Capital and Economic Growth** 95

**The Urban Labor Market** 96

Urban Labor Demand 96

Shifting the Urban Labor Demand Curve 98

Export versus Local Employment and the Multiplier 99

The Labor-Supply Curve 101

Equilibrium Effects of Changes in Supply and Demand 102

**Employment Growth and Decline of the U.S. Manufacturing Belt** 105

The Role of Human Capital 105

Labor and Housing Markets in Shrinking Cities 106

**Public Policy and Equilibrium Employment** 107

Taxes and Firm Location Choices 107

Public Services and Location Decisions 108

Subsidies and Incentive Programs 108

Professional Sports, Stadiums, and Jobs 109

Environmental Quality and Employment 110

**Projecting Changes in Total Employment** 111
Chapter 9 Zoning and Growth Controls

Land-Use Zoning 230
- The Early History of Zoning 231
- Zoning as Environmental Policy? 231
- Fiscal Zoning 232
- Minimum Lot Zoning and the Space Externality 233
- Provision of Open Space 234

The Legal Environment of Zoning 235
- Substantive Due Process 236
- Equal Protection 237
- Just Compensation 237

A City without Zoning? 238

Growth Control: Urban Growth Boundaries 239
- Precise Growth Control: Limiting Land Area and Lot Size 240
- Winners and Losers from Growth Boundaries 241
- Urban Growth Boundary and Density 242
- Portland’s Urban Growth Boundary 244
- Municipal versus Metropolitan Growth Boundaries 244
- Trade-offs with Growth Boundaries and Open Space 244

Other Growth-Control Policies 245
- Limiting Building Permits 245
- Development Taxes 247

Housing Regulations and Housing Prices 247

Summary 249

Applying the Concepts 250

References and Additional Reading 253

PART III
URBAN TRANSPORTATION 255

Chapter 10 Autos and Highways

Congestion Externalities 260
- The Demand for Urban Travel 261
- The Private and Social Costs of Travel 262
- Equilibrium versus Optimum Traffic Volume 263
### Contents

Rationale for Transit Subsidies: Congestion, Environment, and Accidents 301
Incentive Effects of Transit Subsidies 302

**Designing a Transit System** 302
Design Features for Mass Transit 302
Choosing a System: Automobile versus Rail versus Bus 303
A Closer Look at Light Rail 305
The Role of Density 306

**Deregulation: Contracting and Paratransit** 307
Contracting for Transit Services 308
Paratransit 308
The British Experience with Deregulation 309

**Transit and Land-use Patterns** 309

Summary 310

Applying the Concepts 311

References and Additional Reading 313

---

**PART IV**

**EDUCATION AND CRIME IN CITIES** 315

**Chapter 12  Education** 317

**Spending and Educational Achievement** 317

**The Education Production Function** 319
The Home Environment 320
Peer Effects 320

**School Inputs: The Importance of Teachers** 321
Differences in Teacher Productivity 321
Characteristics of High-Productivity Teachers 322
The Effect of Class Size 323
Teacher Compensation 325

**Innovation: Charter Schools** 327
Promise Academy 327
Boarding Schools 328

**Spending Inequalities and Public Policy** 328
Intergovernmental Grants: Foundation Plans 329
Response to a Foundation Grant 330
Matching Grants: Guaranteed Tax Base 331
Effects of Equalization Plans on Spending and Achievement Inequalities 332
PART V
HOUSING

Chapter 14 Why Is Housing Different?

Heterogeneity and Hedonics 367

Durability, Deterioration, and Maintenance 368
  Picking the Quality Level 369
  Changes in Quality and Retirement 371
  Abandonment and Public Policy 372
  Durability and Supply Elasticity 373

Moving Costs and Consumer Disequilibrium 374

The Filtering Model of the Housing Market 376
  Filtering and the Housing Stepladder 376
  Subsidies for New Housing 378
  The Effects of Growth Controls 379
  Filtering with Rising Income 380
  The Price Effects of Growth Controls 380

Summary 382

Applying the Concepts 382

References and Additional Reading 385

Chapter 15 Housing Policy

Public Housing 386
  Public Housing and Recipient Welfare 387
  Subsidies for Private Housing 389
  Low-Income Housing Tax Credit 390
  The Market Effects of Subsidized Housing 390

Housing Vouchers 392
  Vouchers and Consumer Welfare 392
  Market Effects of Vouchers 393
  Portable Vouchers: Moving to Opportunity 395

Community Development and Urban Renewal 395
  Urban Renewal 396
  Recent Community Development Programs 396
  Homelessness 397

Which Housing Policy Is Best? 398

Subsidies for Mortgage Interest 398
  Mortgage Subsidy and Efficiency 399
  Mortgage Subsidy and Home Ownership 400
Contents

From Models to Reality 440
  What about Rental Property Owners and Homeowners? 440
  A Practical Guide for Policy Makers 440
  What about the Business Property Tax? 441

The Tiebout Model and the Property Tax 442

Limits on Property Taxes 443

Intergovernmental Grants 445
  Lump-Sum Grants 446
  Matching Grants 447
  Summary: The Stimulative Effects of Grants 448
  Welfare Reform: Matching Grants to Lump-Sum Grants 449

Summary 450

Applying the Concepts 451

References and Additional Reading 453

Appendix Tools of Microeconomics 455

Index 479