Contents

Preface ix

1 Why Cities Exist 1
1.1 Introduction 1
1.2 Scale Economies 2
1.3 Agglomeration Economies 5
1.4 Transport Costs and Firm Location 10
1.5 The Interaction of Scale Economies and Transportation Costs in the Formation of Cities 16
1.6 Retail Agglomeration and the Economics of Shopping Centers 18
1.7 Summary 20

2 Analyzing Urban Spatial Structure 23
2.1 Introduction 23
2.2 Basic Assumptions 25
2.3 Commuting Cost 26
2.4 Consumer Analysis 27
2.5 Analysis of Housing Production 33
2.6 Population Density 39
2.7 Intercity Predictions 42
2.8 Summary 50

3 Modifications of the Urban Model 51
3.1 Introduction 51
3.2 A City with Two Income Groups 51
3.3 Commuting by Freeway 56
3.4 Adding Employment Outside the CBD 57
3.5 Durable Housing Capital 61
3.6 Cities in Developing Countries 65
3.7 Summary 68
Contents

4 Urban Sprawl and Land-Use Controls  69
4.1 Introduction  69
4.2 Empirical Evidence on the Spatial Sizes of Cities  70
4.3 Market Failures and Urban Sprawl  73
4.4 Behavioral Impacts of Urban Sprawl  80
4.5 Using Land-Use Controls to Attack Urban Sprawl  80
4.6 Other Types of Land-Use Controls  84
4.7 Summary  89

5 Freeway Congestion  91
5.1 Introduction  91
5.2 Congestion Costs  92
5.3 The Demand for Freeway Use  95
5.4 Traffic Allocations: Equilibrium and Social Optimum  99
5.5 Congestion Tolls  104
5.6 Choice of Freeway Capacity  110
5.7 Application to Airport Congestion  112
5.8 Summary  114

6 Housing Demand and Tenure Choice  115
6.1 Introduction  115
6.2 Housing Demand: The Traditional and Hedonic Approaches  116
6.3 The User Costs of Housing  119
6.4 Tenure Choice  124
6.5 Down-Payment Requirements, Tenure Choice, and Mortgage Default  130
6.6 Property Abuse and Tenure Choice  133
6.7 Summary  136

7 Housing Policies  137
7.1 Introduction  137
7.2 Rent Control  137
7.3 Housing-Subsidy Programs  145
7.4 Homelessness and Policies to Correct It  153
7.5 Summary  157

8 Local Public Goods and Services  159
8.1 Introduction  159
8.2 The Socially Optimal Level of a Public Good  161
8.3 Majority Voting and Voting with One’s Feet  163