

Contents

1	Introduction.....	1
1.1	A Classification	2
1.2	Summary of the Book	4
1.3	New Areas	8
1.4	A Last Word	8
2	First-Best Public Provision of Pure Public Goods	9
2.1	Efficient Provision of a Pure Public Good.....	10
2.1.1	Samuelson's Classic Rule for Providing a Pure Public Good	10
2.1.2	The Lindahl Financing Mechanism	13
2.1.3	The Free Rider Incentive Problem.....	14
2.2	Examples	17
2.2.1	A Static Model with Labor	17
2.2.2	Heterogeneity.....	18
2.2.3	A Simple Dynamic Model.....	19
2.2.4	Public Goods in an Overlapping Generations Economy	20
2.3	Financing Public Goods.....	21
2.3.1	First-Best Decentralization: Person-Specific Taxes	22
2.3.2	Non Person-Specific Taxes	23
2.3.3	Pre-Existing Distortions	24
2.3.4	The Economy's Expansion Path	24
2.4	Conclusion.....	26

Appendix: Lump Sum Taxes	27
3 Second-Best Public Provision of Pure Public Goods	29
3.1 Second-Best Provision: Distorting Commodity Taxation	30
3.2 Extensions	34
3.2.1 Heterogeneity in the Second-Best: Commodity Taxation	34
3.2.2 A Reform Analysis	35
3.2.3 Labor Income Taxes	36
3.3 Level Comparisons.....	38
3.3.1 Identical Agents.....	38
3.3.2 Alternative Formulation	39
3.4 Public Goods in the Overlapping Generations Model.....	40
3.4.1 The Optimal Second-Best Rule	40
3.4.2 Level Comparisons	42
3.4.3 Self-Selection and Heterogeneity	43
3.5 The Marginal Cost of Funds (MCF).....	43
3.5.1 Labor Income Taxation and the MCF	44
3.5.2 Capital Income Taxation and the Marginal Cost of Funds...	45
3.5.3 Empirical Calculations of the MCF	46
3.6 Conclusion.....	47
Appendix A: Samuelson's Rule in the Static Model with Heterogeneity.....	48
Appendix B: A Reform Analysis.....	48
Appendix C: Labor Income Taxation.....	49
Appendix D: Samuelson's Rule in the OG Model	49

4 Determining Demand for Public Goods:

Voting and Mechanisms	53
4.1 Voting Models.....	54
4.1.1 The Median Voter Hypothesis.....	54
4.1.2 Problems With the Median Voter Hypothesis	57
4.1.3 Extensions of the Median Voter Model.....	61
4.2 Mechanism Design with Public Goods	62
4.2.1 The Clarke Mechanism.....	62
4.2.2 The Groves - Ledyard Mechanism	66
4.2.3 Multi-Stage Games	68
4.2.4 Problems with Mechanism Design	69
4.2.5 Mechanisms and Social Weighting	72
4.3 Conclusion.....	73

5 Determining the Demand for Public Goods:

Surveys and Indirect Estimation	77
5.1 Bohm's Survey	77
5.2 Contingent Valuation (CV)	79
5.2.1 The Basic Method.....	79
5.2.2 Common Problems	81
5.2.3 An Example of Contingent Valuation: Valuing Commuting Time	81
5.2.4 A Unified Approach to Contingent Valuation.....	82
5.3 A Critique of the Contingent Valuation Approach.....	84
5.4 Indirect Estimation: Weak Complementarity (WC).....	87
5.4.1 The Basic Method.....	87
5.4.2 Problems	91
5.4.3 Indirect Estimation as a Mechanism.....	92
5.5 Conclusion.....	93

6	Privately Provided Public Goods	99
6.1	The Subscriptions Model	101
6.2	The Warm Glow Model	104
6.3	Criticism of the Models.....	106
6.4	Imperfect Altruism Models	108
6.5	Hybrid Models	110
6.6	Fundraising Costs.....	112
6.7	Conclusion.....	113
7	Extensions.....	115
7.1	Charities	116
7.1.1	Fundraising Under Competition	116
7.1.2	Status Effects and Charities.....	118
7.1.3	"Seed" Money.....	121
7.2	Sequential Contributions and Strategic Behavior	122
7.2.1	A Two Period Model	122
7.2.2	Warm Glow Giving	124
7.2.3	Mechanisms	126
7.3	A Simple Dynamic Model of a Privately Provided Public Good.....	129
7.3.1	Privately Provided Public Goods in the OG Model.....	129
7.3.2	Optimality of Donations in the OG Model.....	132
7.4	Conclusion.....	133
8	Neutrality Results	135
8.1	Neutrality Propositions	136
8.1.1	Redistribution	136
8.1.2	Supplemental Government Provision.....	137
8.2	The Failure of Neutrality	138

8.2.1	Non-Neutrality: Non-Participants.....	138
8.2.2	Differences in Marginal Cost	138
8.2.3	Imperfect Altruism: Contributions as Imperfect Substitutes.....	139
8.2.4	Imperfect Altruism: The Warm Glow Model.....	140
8.2.5	Distorting Taxes and Transfers.....	141
8.2.6	Sophisticated and Unsophisticated Agents.....	145
8.2.7	Local Market Power Versus National Policies.....	146
8.2.8	Fundraising	148
8.3	Neutrality and Donated Labor	148
8.3.1	Donated Labor	148
8.3.2	Donated Labor and Cash Contributions	149
8.4	Conclusion	150
	Appendix A: Neutrality Results.....	151
	Appendix B: Non-Neutrality Results.....	151
9	Empirical Evidence on Charitable Contributions.....	155
9.1	Empirical Research on Charity.....	156
9.1.1	Econometric Problems.....	156
9.1.2	Data Sources	158
9.2	Static Models.....	159
9.2.1	Modelling Contributions in a Static Models.....	159
9.2.2	Empirical Results.....	161
9.3	Dynamic Models	168
9.3.1	Modeling Contributions in a Dynamic Model.....	168
9.3.2	Empirical Results.....	172
9.4	Conclusion.....	177

10	Further Evidence on Privately Provided Public Goods	181
10.1	Volunteer Labor.....	182
10.1.1	Modeling Volunteer Labor	182
10.1.2	Evidence	184
10.2	Charitable Bequests	189
10.2.1	Modeling Charitable Bequests.....	189
10.2.2	Empirical Results.....	191
10.3	Testing for Externalities and the Crowding Out Hypothesis ...	193
10.4	Conclusion	202
11	Experimental Evidence on the Free Rider Problem.....	205
11.1	How Are Experiments Designed?	206
11.2	Early Studies of the Free Rider Hypothesis.....	208
11.3	An Early Response to the Early Results	211
11.4	Underlying Influences	214
11.4.1	Marginal Returns.....	214
11.4.2	Group Size Effects.....	215
11.4.3	Communication	215
11.4.4	Learning	216
11.5	Altruism, Warm Glow, or Noise?.....	218
11.5.1	Separating Kindness from Confusion.....	219
11.5.2	Altruism, Warm Glow, or Noise?.....	221
11.5.3	Revealed Preference and Altruism	224
11.6	Framing.....	225
11.7	Eliciting the WTP Function	227
11.8	Conclusion	228

12	The Effect of Public Inputs on the Economy in Static Models.....	233
12.1	The Effect of Public Capital on the Firm.....	234
12.2	A Static Open Economy Model of Public Inputs	235
12.3	Optimal Provision of a Public Input in the Small Open Economy	238
12.4	A Generalization.....	240
12.5	A General Equilibrium Model of Public Infrastructure.....	241
12.6	A Model with Rents.....	243
12.7	Conclusion	245
	Appendix A: Comparative Statics in the Static, General Equilibrium Model	246
	Appendix B: Derivation of (12.10) when $n < m$	248
	Appendix C: Derivation of (12.11).....	248
13	The Effects of Public Capital in Dynamic Models.....	251
13.1	Production Efficiency	253
13.1.1	The Basic Result on Production Efficiency.....	253
13.1.2	Imperfect Control	254
13.1.3	Heterogeneity	255
13.2	Public Investment in the Overlapping Generations Model....	256
13.2.1	Socially Optimal Public Investment in the Neoclassical OG Model	257
13.2.2	Decentralized Government Policy.....	258
13.3	Public Investment in a Model of Long Run Growth	261
13.3.1	Public Capital as a Source of Economic Growth	261
13.3.2	Congestion.....	265
13.4	Conclusion	267
	Appendix A: Derivation of the Weighted Average Formula (13.3) ...	267

Appendix B: The Weighted Average Formula with Heterogeneity ...	268
Appendix C: Endogenous Growth and Congestion - The Planner's Problem.....	269
14 Empirical Work on the Public Capital Hypothesis	271
14.1 Early Results.....	272
14.2 Criticism of the Early Work	275
14.3 Studies Using Disaggregated U.S. Data	276
14.3.1 Regional and State Studies	276
14.3.2 Industry Studies	282
14.4 Additional Time Series Evidence	283
14.5 International Evidence	286
14.6 Optimality	292
14.7 Conclusion.....	295
15 Local Public Goods, Club Goods, and the Tiebout Hypothesis	299
15.1 Club Goods.....	300
15.1.1 The Benchmark Club Good Model	300
15.1.2 Endogenous Classification	304
15.1.3 Intensity of Use	305
15.1.4 Quality Versus Quantity.....	306
15.1.5 Optimal Sorting with Heterogeneous Agents.....	307
15.2 Local Public Goods and the Tiebout Hypothesis.....	310
15.2.1 A Model of an LPG.....	311
15.2.2 A Model with Housing	312
15.2.3 Property Taxation	315
15.2.4 Tiebout Without Political Institutions	318

15.3	Criticism of the Tiebout Hypothesis.....	320
15.4	Conclusion.....	322
16	Fiscal Competition.....	327
16.1	Tax Competition.....	328
16.1.1	Taxing Mobile Capital.....	330
16.1.2	Productive Public Investments.....	332
16.1.3	Tax Exporting and Commodity Tax Competition.....	334
16.1.4	Bidding for the Tax Base.....	335
16.1.5	Tiebout and Tax Competition.....	336
16.2	Extensions.....	338
16.2.1	Composition of Spending.....	338
16.2.2	Residence-Based Capital Income Taxes.....	339
16.2.3	The Time Consistency of Tax Policy.....	340
16.3	Imperfect Mobility.....	342
16.4	Fiscal Federalism.....	345
16.4.1	Mobility and Pareto Optimality.....	345
16.4.2	Vertical Fiscal Competition.....	347
16.5	Conclusion.....	349
	Appendix.....	350
17	Empirical Testing with Local Public Goods.....	353
17.1	Testing the Tiebout Hypothesis.....	354
17.1.1	A Model of Capitalization.....	354
17.1.2	Testing the Capitalization Hypothesis.....	356
17.1.3	Testing Leviathan.....	357
17.2	Estimating the Demand for LPGs: Politics and the Tiebout Hypothesis.....	358

17.3 Strategic Government Behavior 362

 17.3.1 Models of Government Interaction 362

 17.3.2 An Example: Horizontal Tax Competition..... 365

 17.3.3 An Example: Vertical Tax Competition..... 365

 17.3.4 Some Empirical Results 366

17.4 Conclusion..... 368

References..... 371

Index 407

Author Index 415