

Contents

Preface

1	Transport and Economics	
1.1	Transport economics	1
1.2	The economic characteristics of transport	4
1.3	The transport sector	5
1.4	Emerging trends	11
1.5	The framework of the book	14
1.6	Further reading and references	15
2	Movement, Transport and Location	
2.1	The desire for movement	17
2.2	The 'chicken or egg' problem	18
2.3	Transport and industrial location	21
2.4	Output, market area and transport costs	27
2.5	Urban transport and land values	30
2.6	Transport and urban wage rates	35
2.7	Further reading and references	37
3	The Demand for Transport	
3.1	The demand for transport	39
3.2	The factors which influence travel demand	40
3.3	The notion of a 'need' for transport	50
3.4	The valuation of travel time savings	52
3.5	The demand for car ownership	58
3.6	Further reading and references	62
4	The Direct Costs of Transport	
4.1	The supply of transport	66
4.2	Fixed and variable costs	68
4.3	Economies of scope, density and experience	78
4.4	Specific, joint and common costs	79
4.5	Problems of common cost allocation – the road and rail track cases	80
4.6	Transport user costs and the notion of generalised costs	85
4.7	Further reading and references	89
5	The External Costs of Transport	
5.1	What is an externality?	93

5.2	Transport and the environment	94
5.3	The valuation of externalities	96
5.4	The magnitude of the environmental problem	100
5.5	Introduction to traffic congestion	109
5.6	The economic costs of congestion	114
5.7	Some refinements on the basic model	116
5.8	The economic value of congestion	118
5.9	Further reading and references	120
6	Pricing of Transport Services	
6.1	The principles of pricing	122
6.2	Marginal cost pricing	126
6.3	Difficulties of 'second best' situations	128
6.4	Price discrimination and yield management	130
6.5	Pricing with stochastic demand	138
6.6	The problem of the peak	140
6.7	Transport subsidies, operational objectives and pricing	142
6.8	Further reading and references	145
7	Containing the External Costs of Transport	
7.1	Introduction	148
7.2	The 'polluter-pays' principle	149
7.3	Congestion charges	153
7.4	Parking charges	160
7.5	Emissions standards	161
7.6	Transport subsidies and the environment	165
7.7	Protecting the sufferers	167
7.8	Some conclusions	168
7.9	Further reading and references	170
8	Investment Criteria – Private and Public Sector Analysis	
8.1	The importance of infrastructure	173
8.2	Basic principles	174
8.3	Commercial and social approaches to investment	176
8.4	A consideration of the theory of cost-benefit analysis	178
8.5	Coping with network effects	182
8.6	CBA in practice and variations on the theme	184
8.7	Comparability between appraisal techniques	192
8.8	Assessing the effect on national income	195
8.9	Comparability in practice	196
8.10	Further reading and references	197
9	Transport Planning and Forecasting	
9.1	The development of transport planning	200
9.2	The theory of transport planning	203
9.3	Modelling and forecasting	207
9.4	Sequential travel demand forecasting	210
9.5	Disaggregate modelling	215
9.6	Interactive and stated preference modelling	217
9.7	Further reading and references	219

10	Transport and Development	
10.1	Transport and economic development	222
10.2	Transport economics in less developed countries	225
10.3	EC transport policy	231
10.4	Transport and regional development	234
10.5	Transport, urban development and redevelopment	237
10.6	Further reading and references	240
11	The Regulation of Transport	
11.1	The broad issues	243
11.2	Theories of regulation	243
11.3	Priorities in transport policy	247
11.4	Studies of regulatory reform	255
11.5	Coordination via the market, or by direction?	258
11.6	Further reading and references	260
	<i>Index</i>	263