CONTENTS

Lis	t of fig	ures	xii
Lis	t of ta	bles	xvi
Lis	t of ab	breviations	xvii
1.	Introduction and Overview		
	1.1	European Union trade	1
	1.2	Arbitrage	4
		Duality and trade	5
		Controversial trade	9
	1.5	Overview of the book	11
2.	Labo	our Productivity and Comparative Advantage	14
	2.1	Introduction	14
	2.2	Ricardo's theory of comparative advantage	16
	2.3	Extending the Ricardian Model	26
	2.4	Empirical relevance	32
	2.5	Revealed comparative advantage	35
	2.6	Comparative advantage and policy reform	37
	2.7	Aspects of the Ricardian model	37
	2.8	Summary	38
3.	Neo-	Classical Production	40
	3.1	Introduction	40
	3.2	Production functions and factor substitutability	41
	3.3	Fixed factor endowments and efficient resource allocation	43
	3.4	Factor intensities and increasing costs	44
	3.5	Factor prices and proportions	46
	3.6	General equilibrium	47
	3.7	Factor and commodity prices	47
	3.8	Duality, and commodity and factor prices	49
	3.9	Factor market distortions	52
	3.10	Factor intensities again	55
	3.11	Summary	55

viii Contents

4.	Recij	procal Demand and Trade	57
	4.1	Introduction	57
	4.2	Demand and the closed economy	57
	4.3	Community preferences and welfare	58
	4.4	Closed economy equilibrium	60
	4.5	Equilibrium for the open economy	62
	4.6	The gains from trade	63
	4.7	Reciprocal demand and the offer curve	64
	4.8	Properties of an offer curve	67
	4.9	The trading economy's offer curve	68
	4.10		70
	4.11	•	71
	4.12	Stability of equilibrium	72
	4.13		75
	4.14	Summary	76
5.	Fact	or Endowments	77
٥.		Introduction	77
	5.1	The Heckscher-Ohlin model	78
	5.2		98
	5.3	Testing the Heckscher-Ohlin proposition Heckscher-Ohlin: concluding comments	100
		<u>~</u>	101
	5.5	The specific factor model	109
	5.6	Summary	107
6.	Trac	le and Technology	110
	6.1	Introduction	110
	6.2	The technology gap model	111
	6.3	The product cycle theory	114
	6.4	Trade related intellectual property rights	120
	6.5	Conclusions	123
	6.6	Summary	124
7.	Inte	rnational Trade and Imperfect Competition	125
	7.1	Introduction	125
	7.2	Oligopoly in trade	125
	7.3	Monopolistic competition and international trade	132
		Market imperfections and the possibility of damaging trade	139
	7.5	Summary	142
8.	Test	ing Trade Theories	143
0.		Introduction	143
	8.1		143
	8.2	Empirical studies of the Heckscher-Ohlin model Factor content studies	146
	8.3	racioi content studies	

			Contents	i
	8.4	Cross-commodity regression analysis		148
	8.5	Cross-country regression analysis		148
	8.6	Conceptually correct studies of the HO theorem		149
	8.7	Empirical studies of trade under monopolistic competition		153
	8.8	Gravity models and the importance of distance		158
	8.9	Conclusions		161
	8.10	Summary		163
9.	Theo	ry of Trade Policy		164
	9.1	Introduction		164
	9.2	The gains from trade and compensation		164
	9.3	The case for free trade		167
	9.4	Instruments of protection		169
	9.5	Trade policy and economic distortions		178
	9.6	Optimal tariff and the terms of trade		182
	9.7	Immiserizing growth		195
	9.8	Trade policy and domestic monopoly		199
	9.9	Summary		202
10.	Strate	egic Trade Policy		203
	10.1	Introduction		203
	10.2	Imports as a discipline		204
	10.3	Strategic trade policy		205
	10.4	Strategic trade policy: an evaluation		213
	10.5	Quantitative trade restrictions as facilitating practices		218
	10.6	Empirical studies of strategic trade policy		219
	10.7	Conclusions		221
	10.8	Summary		222
	App	endix: The Car Industry in Europe: A Case for Strategic		
	Trac	de Policy?		223
11.	Inter	national Factor Migration		226
	11.1	Introduction		226
	11.2	4		226
	11.3	A comparative static approach to international capital move	ements	230
	11.4			238
	11.5	The dynamic effects of international capital movements		240
	11.6	Summary		246
12.	Trade	e and Growth		247
	12.1	Introduction		247
	12.2	The effects of growth on trade		247
	12.3			254
	12.4	Summary		261

X	Contents
X	Contents

13.	Trade l	Blocs	262
	13.1	Introduction	262
	13.2	The free trade area	262
	13.3	The customs union	269
	13.4	The emergence of regional trading blocs	271
	13.5	Summary	272
14.	Trade,	Competitiveness, Employment, and Wages	274
	14.1	Introduction	274
	14.2	Trade and competitiveness	275
	14.3	Trade and jobs	278
	14.4	Trade and wages	282
	14.5	Implications for policy in the EU	284
	14.6	Summary	285
15.	The Po	olitical Economy of Protection	286
	15.1	Introduction	286
		Autocrats and rent-seeking	287
		Protection and the political process	296
	15.4		300
16.	Trade	and the Environment	301
	16.1	Introduction	301
	16.2		302
		Transboundary pollution	308
		Ecological dumping	310
		Environmental policy in the EU	313
		Conclusions	315
	16.7		316
17.	Europ	ean Union Trade Policy and Developing Countries	317
	17.1		317
	17.2		318
		The trading environment	318
		Policies concerning products	321
	17.5		325
	17.6	Aid	330
	17.7		333
	17.8		335
	17.9	1	337
18.	. The E	uropean Union's Trade Policy, and the CAP	338
	18.1	Introduction	338

		Contents x
18.2	EU trade policy	338
18.3	The Common Agricultural Policy	355
18.4	Summary	365
References		367
Index		375

LIST OF FIGURES

1.1	Unrestricted arbitrage and the effects of trade	3
1.2	Possible income functions	6
1.3	Quantity and price indifference curves	7
1.4	The expenditure function	8
1.5	Autarky and trading equilibrium	9
2.1	Demand, supply, and trade	15
2.2	Production and consumption possibilities	20
2.3	Wages and the terms of trade	23
2.4	Real wages	24
2.5	Production possibilities: three goods	27
2.6	Relative wages and the location of production	28
2.7	Production possibilities and supply: four countries	30
2.8	US and UK labour productivity and export share	33
3.1	Production isoquants	42
3.2	Output per head	42
3.3	Efficient factor allocation	43
3.4	Output and factor proportions	44
3.5	Production possibilities	44
3.6	Factor prices and proportions	46
3.7	Factor and commodity prices	48
3.8	Isoquants and isoprice	51
3.9	Commodity and factor prices	52
3.10	Changing commodity and factor prices	53
3.11	Factor market distortions: capital subsidy	53
3.12	Factor market distortions: minimum wage	54
4.1	Consumer preferences	59
4.2	Closed economy equilibrium	61
4.3	Open economy equilibrium	63
4.4	A total-revenue demand curve	65
4.5	A consumer's supply of money and demand for food	66
4.6	The elasticity of an offer curve	67
4.7	Offer curve with fixed production	69
4.8	Offer curve with variable production	69
4.9	Equilibrium of two trading economies	71
4.10	Stable trading equilibrium	72

	List of Figures	xiii
4.11	Unstable trading equilibrium	73
4.12	The elasticities of a borderline equilibrium	74
5.1	Factor prices and proportions	81
5.2	Factor substitutability	82
5.3	Factor intensity	83
5.4	Factor intensity reversal	83
5.5	Factor endowment and prices	84
5.6	Factor endowment and allocation	84
5.7	Factor prices, factor proportions, and commodity prices	85
5.8	Factor intensity reversal	86
5.9	Feasible factor prices	87
5.10	Equalized factor proportions	88
5.11	Factor intensity reversal	90
5.12	Disparate factor proportions	91
5.13	Production possibilities with an increase in the factor used intensively	
	in the production of <i>X</i>	94
5.14	Enhanced endowment of K but unchanged factor proportions	95
5.15	Pro-trade or anti-trade growth	96
5.16	Growth and the terms of trade	97
5.17	Capital mobility and output: short vs. long run	102
5.18	Total output as a function of labour input	103
5.19	Equilibrium labour allocation	104
5.20	An increase in the price of <i>Y</i>	105
5.21	An increase in the endowment of factor <i>T</i>	106
5.22	Production possibilities with an increase in the factor specific	
	to Y	108
6.1	The product cycle	115
7.1	Domestic monopoly	126
7.2	Cournot duopoly	128
9.1	Gains from trade	165
9.2	Tariff: partial equilibrium	170
9.3	Production subsidy: partial equilibrium	171
9.4	Tariff vs. production subsidy for self-sufficiency	172
9.5	Production subsidy: general equilibrium	174
9.6	Tariff: general equilibrium	175
9.7	Production externality: subsidy	179
9.8	Production externality: tariff	180
9.9	A second-best tariff	180
9.10	Factor market distortion	181
9.11	Tariff with a terms of trade gain	182
9.12	Optimum exports	183
9.13	Optimum tariff	185
9.14	The autarkic equilibrium at A , with production of x exceeding demand	
	for x at higher prices	187

xiv	List of Figures	
9.15	Home's preferred exports and imports, at different relative prices: the	100
	Offer Curve for Home	188
9.16	The free trade equilibrium at D	188
9.17	The free trade equilibrium at D, with consumption and production	100
	equilibria in each country	188 189
9.18	Multiple intersection of offer curves	109
9.19	The offer curve for Home (dashed), and trade indifference curves	189
	(labelled 1, 2, 3)	107
9.20	The home country facing a linear offer curve from Abroad: a tariff	190
0.21	lowers Home 's potential welfare	190
9.21	Effects of a tariff levied by Home, when it faces a linear offer curve	191
9.22	Home facing a concave offer curve, restricting its trade optimally to <i>Q</i> Both countries set their optimum tariffs, taking the other's tariff as	171
9.23		192
9.24	given (Nash equilibrium) The production inefficiency of the Nash double optimum-tariff	172
9.24	equilibrium	194
9.25	Free trade, when Home's optimum tariff would be very much larger	• • •
9.23	than Abroad's	194
9.26		196
9.27	• •	198
9.28		199
9.29	± '	200
9.30		200
9.31	Effective demand: tariff vs. quota	201
10.1	The reaction function for firm A	208
10.2	Cournot equilibrium	208
10.3	Rent shifting in the Cournot model	209
10.4	Rent shifting in the Bertrand model	214
11.1	The effects of capital migrating from country B to country A	232
11.2		
	stocks are endogenous	242
11.3	Long run capital and asset positions for countries A and B	243
11.4	The evolution of consumption, the interest rate, wealth, and capital in	
	countries A and B, following capital-market integration at time t'	245
12.1	Hicks-neutral technological progress at the same rate in both sectors:	
	output effects	251
12.2		251
12.3	Codetermination of the rates of growth and interest in Romer's 1990	
	model of endogenous growth	257
13.1	The effects of the FTA when B is a lower-cost source of supply	264
13.2		265
14.1	Employment in manufacturing	278
15.1	- ·	
	deadweight loss by area a	292

	List of Figures	XV
15.2	Private gains and costs from lobbying	294
16.1	The effects of trade liberalization for a small country importing a good which generates pollution in production	303
16.2	The effects of trade liberalization for a small country importing a good which generates pollution in production: optimal environment policy	
	in place	303
16.3	The effects of trade liberalization for a small country exporting a good	
	which generates pollution in production	304
16.4	The effects of trade liberalization for a small country exporting a good which generates pollution in production: optimal environmental	
	policy in place	305
16.5	The inefficiency of trade policies in achieving environmental objectives	306
18.1	CAP price-stabilization when the rest of the world's excess supply is	
	volatile	355
18.2	CAP price-stabilization when excess demand is volatile in the European	
	Union	357
18.3	The general effects of the CAP, without volatility	359

LIST OF TABLES

1.1	Trade within the EU-12, 1992: in milliard (billion) ECUs	3
1.2	Exports and imports for selected countries, 1992: in milliard (billion)	
1.2	ECUs	4
		18
2.1	Labour inputs	21
2.2	Money costs of production	24
2.3	Real wages in terms of each good before and after trade	25
2.4	Value added per hour worked in manufacturing in Germany and Japan	
2.5	(United States = 100)	34
2.6	British and German relative labour productivity	35
5.1	Factors required to produce \$ million worth of exports and import	
J.,	replacement	98
8.1	Ratio of net trade to national endowment (*100) for various factors of	
0.1	production	151
8.2	Estimates of the gravity model using data for 25 countries for 1992	159
8.3	The actual and predicted distribution of Russian trade using the gravity	
	model	161
14.1	Growth in real GDP, command GDP and productivity	276
17.1	Share of selected country groups in extra-EU trade	320
17.1	Extra-EU imports by commodity groups (percentage of imports)	320
17.2	Extra-EU exports by commodity groups (percentage of exports)	321
18.1	Summary of trade liberalization for industrial products in the interim	
10.1	Europe agreements	340-1
18.2	Average tariffs and the distribution (per cent) of EU imports according	
10.2	to different tariff rates: pre- and post-Uruguay Round	350
18.3	Separate components of overall welfare effects of high EU food prices	
	under the Common Agricultural Policy	361