The World Food Economy

Douglas Southgate,
Douglas H. Graham, and
Luther Tweeten

Department of Agricultural, Environmental, and Development Economics
The Ohio State University
Columbus, OH, USA

John Wiley & Sons, Inc.
## Contents

*Preface to the Second Edition* ix

*Acknowledgments* xi

1 Introduction 1

1.1 Our Focus 4

1.2 Chapter Outline 7

Key Words and Terms 10

Study Questions 10

2 The Demand Side: How Population Growth and Higher Incomes Affect Food Consumption 11

2.1 Classic Malthusianism, Its Modern Variants, and Its Critiques 12

2.2 Demographic Transition 20

2.3 Trends in Human Numbers, Past and Present 31

2.4 Food Consumption and Income 34

2.5 Demand Trends and Projections 38

2.6 Summary and Conclusions 41

Key Words and Terms 41

Study Questions 42

Appendix: The Fundamental Economics of Demand 43

3 The Supply Side: Agricultural Production and Its Determinants 49

3.1 The Nature of Agriculture 50

3.2 Increases in Agricultural Supply 59

3.3 Has Intensification Run Its Course? 75

3.4 The Food Economy Beyond the Farm Gate 82

3.5 Trends in Per Capita Production 85

Key Words and Terms 87

Study Questions 88

Appendix: The Fundamental Economics of Supply 89
## Contents

4 Aligning the Consumption and Production of Food over Time 95

4.1 The Desirability of Competitive Equilibrium 97
4.2 Public Policy and Markets for Farm Products 100
4.3 Historical Trends in the Scarcity of Agricultural Products 106
4.4 Outlook for the Twenty-First Century 111

Key Words and Terms 113
Study Questions 114
Appendix: The Coordination of Decentralized Decision Making 114

5 Agriculture and the Environment 122

5.1 Diagnosing and Correcting Environmental Market Failure 124
5.2 Agriculture and Climate Change 127
5.3 Farmland Degradation 131
5.4 Agriculture and Deforestation 136
5.5 Agricultural Development and the Environment 140

Key Words and Terms 144
Study Questions 144
Appendix: Market Failure and Its Remedies 145

6 Globalization and Agriculture 151

6.1 The Theory of Comparative Advantage 152
6.2 Trade Distortions and the Economic Impacts 154
6.3 The Debate over Globalization 158
6.4 Potential Gains from Agricultural Trade Liberalization 161
6.5 Multilateral Trade Negotiations and Agriculture 165
6.6 The Case for Free Trade Still Stands 170

Key Words and Terms 171
Study Questions 172
Appendix: Two-Country Illustrations of Comparative Advantage 172

7 Agriculture and Economic Development 178

7.1 Economic Expansion and Structural Transformation 180
7.2 Agriculture's Role in Economic Development 187
7.3 Trying to Develop at Agriculture's Expense 189
7.4 Agricultural Development for the Sake of Economic Growth and Diversification 193
7.5 Summary and Conclusions 196

Key Words and Terms 197
Study Questions 197
8 Striving for Food Security 199
  8.1 Who and Where Are the Food-Insecure? 200
  8.2 Achieving Food Security 204
  8.3 The Food Security Synthesis and Economic Development 208
  8.4 The Standard Model and Communitarian Values 217
Key Words and Terms 220
Study Questions 220

9 Interregional Differences and Similarities 221
  9.1 Economic Growth and Income Distribution 221
  9.2 Population Dynamics 226
  9.3 Agriculture's Response to Demand Growth 234
  9.4 Summary 238
Key Words and Terms 240
Study Questions 240

10 Affluent Nations 241
  10.1 Standards of Living 242
  10.2 Population Dynamics 245
  10.3 The Food Economy 249
  10.4 Dietary Change and Consumption Trends 259
  10.5 Summary 264
Key Words and Terms 266
Study Questions 266

11 Asia 267
  11.1 Trends in GDP per Capita 268
  11.2 Population Dynamics 274
  11.3 Agricultural Development 279
  11.4 Dietary Change, Consumption Trends, and Food Security 285
  11.5 Summary 290
Key Words and Terms 291
Study Questions 291

12 Latin America and the Caribbean 292
  12.1 Trends in GDP per Capita 293
  12.2 Population Dynamics 298
  12.3 Agricultural Development 302
  12.4 Dietary Change, Consumption Trends, and Food Security 311
  12.5 Summary 315
Key Words and Terms 318
Study Questions 318
### Contents

#### 13 The Middle East and North Africa
- 13.1 Political Realities and Economic Trends 320
- 13.2 Population Dynamics 324
- 13.3 Agricultural Development 328
- 13.4 Dietary Change, Consumption Trends, and Food Security 335
- 13.5 Summary 339

#### Key Words and Terms 340

#### Study Questions 340

#### 14 Eastern Europe and the Former Soviet Union
- 14.1 Economic Trends since the Fall of Communism 343
- 14.2 Demographic Trends 349
- 14.3 The Agricultural Sector 353
- 14.4 Dietary Change, Consumption Trends, and Food Security 362
- 14.5 Summary 370

#### Key Words and Terms 371

#### Study Questions 371

#### 15 Sub-Saharan Africa
- 15.1 Trends in GDP per Capita 375
- 15.2 Demographic Trends 380
- 15.3 Agricultural Development 386
- 15.4 Consumption Trends and Food Security 395
- 15.5 Summary 402

#### Key Words and Terms 403

#### Study Questions 403

#### 16 The Global Food Economy in the Twenty-First Century
- 16.1 Victims of Our Own Success? 407
- 16.2 The New Food Economy 410
- 16.3 The Changing Role of Government 412
- 16.4 Back to the Future Food Economy? 414

#### Key Words and Terms 418

#### Study Questions 418

#### Abbreviations and Acronyms 419

#### Map Annex 421

#### References 427

#### Index 441