A-1. Major commodities in world agricultural trade ......................... 6
A-2. Developed countries’ import share of world imports,  
    by leading commodities ........................................... 7
A-4. Income elasticities estimated from AIDADS by region, 1980 and 1995 . 11
A-6. Simulated import shares for processed commodities .............. 12
A-7. Simulated import shares for livestock commodities .............. 12
A-8. Simulated import shares for bulk commodities ................... 12
A-9. Simulated import shares for horticultural products ............. 12
B-1. Budget shares and income elasticities of aggregate  
    consumption categories ............................................. 16
B-2. Budget shares and income elasticities of food sub-categories .... 20
C-1. Global food availability ............................................. 27
C-2. Food consumption patterns in selected countries ................. 28
F-1. Global fruit and vegetable supply .................................. 50
G-1. United Kingdom exports of beef and veal and cattle, 1990-1999 .... 61
H-1. Organic retail sales and import share in world markets .......... 70
H-2. Consumer share and price premiums in key demand centers ... 73
H-3. Percentage shares of retail market by distribution channel ..... 74
I-1. Examples of animal welfare laws .................................... 82
J-1. Inventory of generic farm quality assurance schemes operating in the  
    U.K. livestock sector .................................................. 93
J-2. Generic processor quality assurance schemes-U.K. livestock sector . 94
J-4. Elements of process and product attributes and relationship to  
    extrinsic and intrinsic cues ......................................... 96
J-5. Provisions of a farm-level generic quality assurance scheme—  
    Farm Assured British Beef and Lamb (FABBL) .................... 97
J-7. Additional provisions of Waitrose quality beef scheme ........... 99
List of Figures

1. Changes in U.S. per capita consumption, 1970-98 .......................... 1
2. Global food consumption patterns .............................................. 3
A-1. Composition of world agricultural trade .................................. 5
A-2. Shares of world imports by developed and developing countries ..... 6
A-3. Income level and source of calories ........................................ 7
A-4. World meat imports .......................................................... 7
B-1. Per capita real income ....................................................... 17
B-2. Income elasticity for food ................................................... 17
B-3. Own-price elasticity for food ................................................ 20
B-4. Own-price elasticity for food groups ..................................... 21
B-5. Cross-price elasticities for cereal ......................................... 21
C-1. Projected urban population .................................................. 25
C-2. Developing country GNP per capita ...................................... 27
C-3. Per capita cereal consumption in China .................................. 28
C-4. Per capita cereal consumption in India ................................... 29
D-1. U.S. non-bulks surpass bulk exports since 1991 ........................ 32
D-2. Weighted mean distance for U.S. beef, horticultural products, and corn exports ......................................................... 32
D-3. Shipping margins higher for horticultural products .................. 33
D-4. U.S. trade of perishable products ......................................... 33
D-5. Shipping costs and times ..................................................... 34
D-6. Shipping rates for container loads of frozen poultry .................. 34
D-7. Spatial equilibrium model with and without transport costs ....... 36
D-8. Link between world trade and market for shipping services ...... 37
D-9. Impact of technological change on shipping rates and trade ....... 37
E-1. Total U.S. per capita consumption of red meat and poultry ....... 42
E-2. U.S. per capita consumption of red meats and poultry .......... 42
E-3. U.S. per capita meat consumption ........................................ 43
E-4. Greater poultry consumption caused by changed consumer preferences ................................................................. 43
E-5. Relative U.S. retail price of whole chicken in terms of round roast beef ............................................................... 44
E-6. Change in quantity of poultry demanded by U.S. consumers in response to lower poultry prices ........................................ 44
E-7. New poultry production technology shifts aggregate U.S. poultry supply outward ...................................................... 45
E-8. Ratio of Japan/U.S. broiler part prices .......................... 46
F-1. Per capita U.S. fruit and vegetable consumption .................. 50
F-2. U.S. vegetable and melon consumption .......................... 50
F-3. U.S. fruit consumption .............................................. 51
F-4. Major fruits consumed in the United States ...................... 52
F-5. Major vegetables and melon consumed in the United States .... 52
F-6. Imports as a share of fresh fruit and vegetable consumption .... 54
G-1. Food safety risks: Countries vary in perceptions, concerns, and acceptance .............................................. 57
G-2. U.S. fresh raspberry imports ........................................ 59
List of Acronyms and Abbreviations

Assured British Meat (ABH)
American Humane Association (AHA)
Agricultural Research Service of USDA (ARS)
Beef Quality Assurance (BQA)
British Quality Assured Pork (BQAP)
Bovine spongiform encephalopathy (BSE)
Controlled atmosphere (CA)
Common Agricultural Policy of the European Union (CAP)
China Council for International Cooperation on Environment and Development (CCICED)
Chlorofluorocarbon compounds (CFC)
Creutzfeldt Jakob Disease (CJD)
Community Supported Agriculture (CSA)
European Commission (EC)
European Fair Trade Association (EFTA)
Economic Research Service of USDA (ERS)
European Union (EU)
Farm Assured British Beef and Lamb (FABBL)
Farm Assured British Pigs (FABPIGS)
Food and Agriculture Organization of the United Nations (FAO)
Foreign Agricultural Service of USDA (FAS)
Foreign Agricultural Trade of the United States (FATUS)
Farm Assured Welsh Lamb (FAWL)
Food and Drug Administration of the United States (FDA)
Food Safety Inspection Service of USDA (FSIS)
Genetic engineering (GE)
Global positioning systems (GSP)
Guild of Scottish Quality Meat Suppliers (GSQMS)
Global Trade Analysis Project (GTAP)
Hazard Analysis and Critical Control Point (HACCP)
Hydrochlorofluorocarbon compounds (HCFC)
Hydrofluorocarbon compounds (HFC)
International Comparison Project (ICP)
International Food Policy Research Institute (IFPRI)
International Federation of Organic Agriculture Movements (IFOAM)
Integrated Pest Management (IPM)
International Organization for Standardization (ISO)
International Trade Centre (ITC)
Journal of Commerce (JOC)
Ministry of Agriculture, Fisheries, and Food of the United Kingdom (MAFF)
Mass sociogenic illness (MSI)
National Cattlemen’s Beef Association (NCBA)
Newly industrialized countries (NIC)
Northern Ireland Farm Quality Assurance (NIFQAS)
Northern Ireland Pig Assurance Scheme (NIPAS)
Non-tariff barriers (NTB)
Organization for Economic Co-operation and Development (OECD)
Polychlorinated biphenyls (PCB)
Pork Quality Assurance (PQA)
Produce Studies Consulting (PSE)
Scottish Pig Industry Initiative (SPII)
Scottish Quality Beef and Lamb Assurance (SQBLA)
Twenty-foot equivalent (TEU)
United Kingdom (UK)
United Nations (UN)
United Nations Conference on Trade and Development (UNCTAD)
United States (US)
United States Department of Agriculture (USDA)
World Development Indicators, The World Bank (WDI)
World Health Organization of the United Nations (WHO)
World Trade Organization (UN)