Index

Agreement on Subsidies and Countervailing Measures (SCM) 82
Agreement on Technical Barriers to Trade (TBT) 81–2, 84, 85, 86–7, 90
Agreement on Trade-Related Intellectual Property Rights (TRIPs) 89

agriculture
and EU enlargement 149–50, 151, 154
and invasive alien species (IAS) 72–4
Poland 158, 161, 162, 163, 164, 195
Albrecht, J.A. 116
Auer, M.R. 182–3, 186, 190

Barrett, S. 114
base-weighted targets, problems with 22
behaviour, and incentives 44–5
Bhagwati, J.N. 68
Bradford, R.L. 114, 117, 126
brownfields revitalization 196–9, 200, 201–2
Bulgaria
and Kyoto Protocol 210, 213
nuclear energy, reliance on 229
Bush, President G.W. 17–18, 38, 43
business as usual (BAU) emissions trajectories 22–4, 39–40, 51–2
capital mobility 65
carbon tax 30–32, 50, 300
Carter, F. 227
Central and Eastern Europe (CEE), see Central and Eastern Europe (CEE), energy and sustainability; Central and Eastern Europe (CEE), environmental cleanup; entries for individual countries; European Union (EU)
enlargement, eastern; Kyoto Protocol, and economies in transition (ETTs); Kyoto Protocol, and Russia; Russia, climate policy, new framework for; Russia, environmental policy, reorganization of
Central and Eastern Europe (CEE), energy and sustainability 227–9, 260–61
carbon intensities 228, 230
electricity demand trends 247–9
electricity industry reform 241–3
energy efficiency, progress towards 256–60
energy intensities 228, 230, 231–5, 238–9, 246–7, 249–60
energy transition, first decade of 240–49
GDP trends and demand for primary energy 245–7, 248–9
legacies of centrally planned economies 233–7, 239–40
policy agenda for energy market transition 237–40, 256–60
pollution levels 227–8, 230, 231
position at fall of communism 229–33
price reform 238, 243–4, 249, 257
see also Russia
Central and Eastern Europe (CEE), environmental cleanup 182–4, 202–3
brownfields revitalization 196–9, 200, 201–2
external public financial sources 198, 199–202, 203
foreign direct investment (FDI) 184–90
managing environmental liability risks 188–90, 199
past pollution, cleanup 198–9
subregions, description of problems in 190–96
centrally planned regimes
inefficiency of 233–5, 239
and pollution 227
positive legacies 235–7, 239–40
Chernobyl disaster 227
China, greenhouse gas emissions 20
coal-fired power plants 39
comparative advantage, and EU enlargement 151, 152
compensation mechanisms, and trade regime 60–61
competitiveness, see regulation and international competitiveness
Copeland, B.R. 66, 67
corruption 29, 234–5
Russia 29, 268, 277, 287, 318
cost–benefit analysis 39
Croatia, and Kyoto Protocol 210, 213, 219
Czech Republic
data reliability 252, 253
electricity demand trends 247–8, 249
electricity industry 241–2
emission levels 147, 191–2, 213, 230
and emissions trading 211
energy efficiency, progress towards 256–60
energy intensity 230, 231, 232, 250, 251, 253–4, 257–8
energy prices 243–4, 249
EU accession 146–7
foreign direct investment (FDI) in 184, 185, 186, 189
GDP trends and demand for primary energy 245–7, 248, 249
and Kyoto Protocol 210, 213, 221
natural gas 230
subregions, social and environmental problems in 191–2, 193
developing countries
and eco-labelling 90–91
foreign direct investment (FDI) in 184
and Kyoto Protocol 21–2, 23–4, 43, 47–8, 51–2, 332
persistent poverty, reasons for 202
and USA 43
and WTO 86, 94, 95
discount rates 217–18
eco-duties 82
eco-labelling 83–4, 90–91
economic development 22, 23
economic growth 61–2
and climate policy, Russia 295–6, 297–306, 316–18, 321, 324–5, 326–7
and foreign direct investment (FDI) 188
and trade liberalization 144, 145, 151
economists 44–5
emission scenarios 299
Russia 298–306, 324, 325
emissions targets 21–6, 39–41, 51–2, 216
economies in transition (EITs) 207–8
flexibility 45–8
emissions trading 24, 25, 26–30, 46–7, 208–9, 330
and Clean Development Mechanism (CDM) 47–8
and cost reductions 48, 49
data management and reporting 215
and EU 28–9, 42–3, 211
prices 28, 50–51, 208
and projections of emissions 216
revenue from 212, 218–20
Russia 284–5, 300, 303, 328, 334
USA and EU, views on 42–3
see also Kyoto Protocol, and economies in transition (EITs); regulation and international competitiveness
energy sector, Central and Eastern Europe (CEE), see Central and Eastern Europe (CEE), energy and sustainability
taxes 31, 40–41, 42, 50
environment and trade, linkages between 60–65, 107–8
environmental policy, as surrogate for trade policy 66–7, 76
environmental protection, possible instruments 168
environmental standards, see European Union (EU) enlargement, emission standards and foreign direct investment (FDI); regulation and international competitiveness; standards

Estonia
and Kyoto Protocol 210, 213, 221
subregions, social and environmental problems in 194–5

European Bank for Reconstruction and Development (EBRD) 200–202

European Court of Justice (ECJ) 96, 98–9, 100, 102, 103

European Union (EU) 1–2
domestic standards, maintenance of 96–7
and emissions trading 28–9, 211
energy taxation 31
extra-jurisdictional activity 97–9
financial institutions 200–202
harmonization, environmental policy/standards 67, 68–70, 72–3, 74, 76–7, 83, 96–8, 102, 104–6
and invasive alien species (IAS) measures 72–3, 74, 75
and Kyoto Protocol 2, 22–3, 42–3, 328
and protectionism 82
rule making and implementation 99–102, 103–4, 105–6, 107
subsidarity 68–70
subsidies 82, 150
and USA 42–3
and WTO 95

European Union (EU) enlargement, eastern 67, 163–4, 167–8
economic effects 157–9, 162
and emissions trading 211
and environmental cleanup 198, 200–202
environmental effects 159–62
and Kyoto Protocol 219
regional disparities 162
southern enlargement, comparisons with 145–7
and standards 101, 102, 105–6

European Union (EU) enlargement, emission standards and foreign direct investment (FDI) 167–9, 178–9
benchmark model 169–72
comparative statics 172–4
free entry and exit of FDI 175–8

European Union (EU) enlargement, southern 143, 163–4
eastern enlargement, comparisons with 145–7
economic effects 148–53, 156–7
environmental effects 153–6
regional disparities 156–7
trade liberalization, environmental impact of 144–5
transition periods 148
externalities 63, 70
internalization of 60–61, 63–4

foot and mouth disease (FMD) 72–4, 75–6
foreign direct investment (FDI) 168–9
Central and Eastern Europe (CEE) costs and benefits 188
and environmental cleanup 182–4
managing environmental liability risks 188–90
patterns of 184–7
Poland 157, 162, 184, 185, 186–7, 188–90
Russia 318
costs and benefits 187–8
and environmental standards 68
and EU enlargement, southern 151–3
see also European Union (EU) enlargement, emission standards and foreign direct investment (FDI)
free-rider problem 19, 68

General Agreement on Tariffs and Trade (GATT) 63, 64, 66–7, 103, 104
domestic standards, maintenance of 85–7
extra-jurisdictional activity 89–90
import bans 81
and invasive alien species (IAS) 72
genetic engineering 33
Global Environment Facility (GEF) 64, 287, 329
Global Environment Organization (GEO) 63–4
global warming and cost–benefit analysis 39
future effects of 32–3
Intergovernmental Panel on Climate Change (IPCC) assessments 17
Kyoto Protocol, effect of full implementation 21
structure of problem 19–20
technological responses to 33–4
globalization, and Russia 290
Gokturk, S.S. 169
Grachev, V. 331
Greece, and EU enlargement 146–7
agriculture 149, 150, 151
economic effects 148, 149, 150, 151–2, 153, 156–7
environmental effects 153–4, 155–6
Grossman, G. 144
Hagem, C. 208
Hardes, H.-D. 146
Hausmann, R. 202
heating networks 236, 238
Holtsmark, B. 208
housing 236–7
Hudec, R.E. 68
Hungary
data reliability 252, 253
electricity demand trends 247–8, 249
electricity industry 241–2
emission levels 147, 213, 228, 230
energy efficiency, progress towards 256–60
energy intensity 230, 231, 232, 250, 251, 253–4, 255, 257–8
energy prices 243, 244, 245, 249
EU accession 146–7
foreign direct investment (FDI) in 184, 185, 186, 189
GDP trends and demand for primary energy 245–7, 248, 249
inefficiency in 234–5
and Kyoto Protocol 210, 213
natural gas 230
nuclear energy, reliance on 229
subregions, social and environmental problems in 193–4
import bans 81
innovation and regulation, see regulation and international competitiveness
Instrument for Structural Policies for Pre-accession (ISPA) 201–2
Intergovernmental Panel on Climate Change (IPCC) 17
internal market (EU) 145
International Bank for Reconstruction and Development (IBRD) 200, 286, 287
International Finance Corporation (IFC) 199–200
International Monetary Fund (IMF), carbon tax monitoring 31
invasive alien species (IAS) 70–76
investment 216–18, 301; see also foreign direct investment (FDI)
Jaffe, A.B. 114
Krueger, A. 144
Kyoto Protocol 1, 18
and developing countries 21–2, 23–4, 43, 47–8, 51–2, 332
and emissions trading 26–30
enforcement 50
evaluation of 20–26
mechanisms 207, 208–10
ratification 208, 210, 293, 326, 327–35
time horizons 40
Kyoto Protocol, and economies in transition (EITs) 2, 207–8, 221–2
benefits 211–14, 296–7, 334
carbon intensities 212–13, 214
domestic implementation, successful 214–18, 310–13
international negotiations 218–20
mechanisms, post-Marrakesh 208–11, 329–30
participation 220–21
Kyoto Protocol, and Russia 28, 29, 47, 208, 210, 213, 219, 220 commitments, meeting 300 and economic growth 298–9 ratification 293, 326, 327–35 Kyoto Protocol, and USA 17–18, 21, 29, 37–8, 208, 334 cost estimates 48–50 flexibility mechanisms 45–50 political chasms 41–5 targets and timetables 39–41 treaty design 50–52

Lahiri, S. 169
Large Plant Combustion Directive 70
Latvia foreign direct investment (FDI) in 185–6 and Kyoto Protocol 210, 213, 221 Levinson, A. 169 liability, environmental, see Central and Eastern Europe (CEE), environmental cleanup Linde, C. van der 117
Lithuania and Kyoto Protocol 210, 213, 221 nuclear energy, reliance on 229 location decisions, firms 65–6 Long Range Transboundary Air Pollution (LRTAP) Convention 70

marine environment, international agreements 91, 272 Markusen, J.R. 168–9
methane, and taxation 31 monitoring 29, 31, 50, 215, 315–16, 328–9
Most Favoured Nation (MFN) status 86
multilateral environmental agreements (MEAs) 63–4, 91–3
multinational corporations (MNCs) 68, 187–8

natural gas
Central and Eastern Europe (CEE), use in 229–31
Russia 230, 287, 320, 325–6, 334

North American Free Trade Agreement (NAFTA) 64
Nutter, G.W. 252–3

Oates, W.E. 116
Objective 1 funds 201–2
Ono, Y. 169

packaging 237
Palmer, K.P. 117, 126

Index

Eastern Europe (CEE) 239, 241–2, 249, 255–6, 257
and environmental cleanup, Central and Eastern Europe (CEE) 189, 198–9
Russia 319
production methods, and trade liberalization 145
property rights 310–11, 316, 319–20
proportionality 86, 100, 103, 107
protectionism 66–7
eco-labelling 83–4
invasive alien species (IAS) measures 72
regulation as 65, 81–2, 83
see also Agreement on Technical Barriers to Trade (TBT)
public goods 68, 70, 73
vaccinations as 75–6
public transport 235–6, 240, 253–4
quality assurance 84
Rauscher, M. 169
regulation, see standards
regulation and international competitiveness 113–16, 131–2
conventional school 116–17
model 118–31, 132, 135–40
revisionist school 117–18
risk assessment 87–8, 106
risk pooling 74–5
Romania
and Kyoto Protocol 210, 213
natural gas 230
Runge, C.F. 64
Russia 2–3
corruption 29, 268, 277, 287, 318
data reliability 252–3, 306
electricity demand trends 247
electricity industry 241–3
emission levels 213, 230, 270–73, 279, 326, 332
emission scenarios 298–306, 324, 325
energy efficiency, progress towards 256–60, 321–4
energy exports 229–30
energy intensity 230, 231–2, 250–53, 256, 257–8, 301, 304, 305, 320, 325
energy prices 243, 244, 252, 320, 322, 323, 325–6
energy sector, emission forecasts 303–4
GDP trends and demand for primary energy 245–7
natural gas 230, 287, 320, 325–6, 334
see also Kyoto Protocol, and Russia
Russia, climate policy, new framework for
anti-bureaucratic laws 318
climate policy law 308–9
Committee of Environmental Protection (CEP) project 311–13, 315
Development Strategy 317–18, 321, 324–6
emission trends and economic growth 298–306
energy sector modernization 320–24
evolution of climate policy, 1990s to 2000s 293–8
Federal Target Program on Climate Change 309–10
future configuration of institutions 310–16
institutions, domestic 295, 296, 297, 306–16, 318–20
Interdepartmental Commission on Climate Change (ICC) 295, 296, 297, 306–8, 314
Kyoto Protocol, ratification of 293, 326, 327–35
Ministry of Fuel and Energy project 313–16
property rights 310–11, 316, 319–20
public opinion 294, 296–7, 333
regions 313–14
tax reform 318–19
Russia, environmental policy, reorganization of 265–6
administrative reorganization 273–5
barriers to new policy implementation 268–9
decentralization of environmental management 275–8
economic activity, effect of 270–73
environmental funds 281–2, 284
environmental situation 269–73
financing environmental protection 282–8
foreign assistance, role of 285–8
future prospects 288–90
implementation effectiveness 269–73
institutional framework for environmental management, innovations in 273–8
major features of, 1990s 266–7
pollution charges 278–81
Sanitary and Phytosanitary Agreement (SPS) 63, 66–7, 72, 81, 85, 87–8
Simpson, R.D. 114, 117, 126
Single European Act (SEA) 100
Slovak Republic
emission levels 147
and emissions trading 211
EU accession 146–7
foreign direct investment (FDI) in 186
and Kyoto Protocol 210, 213, 221
nuclear energy, reliance on 229
subregions, social and environmental problems in 192–3
Slovenia
foreign direct investment (FDI) in 186
and Kyoto Protocol 210, 211, 213, 221
Spain, and EU enlargement 146–7
economic effects 149–51, 152, 153, 156–7
environmental effects 154, 155–6
standards
compliance with, trading partners 107
and cost differentials 81
and eco-duties 82
and EU 67, 68–70, 72–3, 74, 76–7, 83, 96–9, 100–102, 103–4, 105–6
and GATT/WTO 85–8, 102–5
harmonization of 59–60, 67–70, 72–3, 74–7, 83, 96–8, 102, 104–6
production process or methods standards (PPMs) 83–4, 89–90, 94, 97–8, 104
and protectionism 65, 81–2, 83
and quality 84
and relocation of activities 65–6
types of 83
see also European Union (EU) enlargement, emission standards and foreign direct investment (FDI); regulation and international competitiveness
Stupp, S. 146
subsidarity 68–70
subsidies 82, 150, 238, 244, 257
Task Force on the Environment and the Internal Market 145
taxation 30–32, 40–41, 42, 50, 82–3
Russia 300, 318–19
technology 33–4, 43–5, 154–6, 162
and emission scenarios 300, 301, 302
transfer 214
trade agreements, and relocation of activities 65–6
trade and environment, linkages between 60–65, 107–8
trade–environment debate 1
trade liberalization 61–3, 103–4, 144–5, 151
trade unions, Russia 320
Ukraine
and Kyoto Protocol 28, 29, 47, 208, 210, 212, 213, 220
natural gas 230
Urban Waste Water Treatment (UWWT) Directive 69
USA
and developing countries 43
and EU 42–3
public opinion 42
social and environmental problems, pockets of 190
and WTO 95
see also Kyoto Protocol, and USA
Victor, D.G. 29–30
Vienna Convention for the Protection of the Ozone Layer 286–7
Whalley, J. 64
Wheeler, D. 66
<table>
<thead>
<tr>
<th>Term</th>
<th>Page(s)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Environment Organization (WEO)</td>
<td>63–4</td>
<td></td>
</tr>
<tr>
<td>World Trade Organization (WTO)</td>
<td>63–4, 68</td>
<td></td>
</tr>
<tr>
<td>domestic standards, maintenance of</td>
<td>85–8</td>
<td></td>
</tr>
<tr>
<td>extra-jurisdictional activity</td>
<td>89–93</td>
<td></td>
</tr>
<tr>
<td>rule making and implementation</td>
<td>93–5, 102–5, 107</td>
<td>and taxation 82</td>
</tr>
<tr>
<td>Xepapadeas, A.</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>Zeeuw, A. de</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>Zissimos, B.</td>
<td>64</td>
<td></td>
</tr>
</tbody>
</table>