

# Index

---

- absolute cap 270
- absolute volume targets 175
- accelerated depreciation for capital costs 94–5
- accounting for emission rights 118–22
  - accounting problems 118
  - accounting procedures for intra-group operations 121–2
  - classifying assets 119
  - differences between accounting and taxation regulations 125
  - initial valuation 119
  - liability recognition 120
  - related party transactions *see* related party transactions
  - subsequent valuation 119–20
- acquisition cost method 119
- additionality 189–90, 195
- administrative costs 169
- advertising taxes 37, 43
- age, and WTP 209–17
- agriculture
  - Australia's Carbon Farming Initiative 184–98, 262, 263
  - emissions offsets projects 187, 191
- air travel, taxation of 82
- allocation, justice within 170
- allowance allocation 163, 165
  - EU ETS 233
  - free *see* free allowance allocation
  - initial allocation 168, 169, 175–8, 181
- allowance validity 168, 175–8, 181
- announcement effects 228
- Arimura, T. 221
- arm's length principle 123, 130
- Arrazola, M. 6
- Asia 201
  - Northeast Asia emissions trading schemes 149–66
  - see also under individual countries*
- Asia-Pacific Economic Cooperation (APEC) 132
- auctions of allowances 175–7
- Australia
  - Carbon Credits Regulator 187
  - Carbon Farming Initiative 184–98, 262, 263
    - activities covered 190–92
    - general overview 185–7
    - permanence arrangements and relinquishments 193–4
    - reporting and crediting 192–3
    - scheme processes 187–90
  - carbon leakage 263–73
    - free allowance allocation vs border adjustments 269–73
    - sectoral analysis 268–9
  - Carbon Pollution Reduction Scheme (CPRS) 184, 185–6, 266
  - Carbon Pricing Mechanism 185, 261–3
    - coverage 262–3
    - links to other schemes 263
  - Clean Energy Act 2011 261–2
  - Clean Energy Plan 184–6, 194
  - Domestic Offsets Integrity Committee (DOIC) 189
  - Federal Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) 92
  - hydraulic fracturing 91–5
    - environmental concerns 91–3
    - framework for the regulation of CSG projects 93
    - tax incentives 94–5
  - Jobs and Competitiveness Program 261, 263–7, 269, 270
    - eligibility criteria 264–5
    - levels of assistance 266–7

- overall design 265
  - review of the Program 267
- National Carbon Offset Standard 186, 196
- National Registry of Emissions Units 187
- Productivity Commission 267, 273
- Australia–Europe Senior Officials Talks on Climate Change (SOT) 263
- Australian carbon credit units (ACCU)s 186–7, 188, 193–4, 263
- Australian–New Zealand Carbon Pricing Officials Group 263
- Azerbaijan 80
- Babiker, M.H. 248
- backstop emissions trading 110
- backstop technology 252, 253, 254
- banking 177
- behaviour, changing 56–7
- Beijing Environmental Exchange 157
- Belarus 81
- benchmarking 176–7, 265
- best available retrofit technology (BART) 103, 105–7, 108, 110–11, 112–13
- bindingness 168, 172–4, 181
- biodiversity 22, 24, 28
- biofuels 222
- Bird, R.M. 45
- Böhringer, C. 248
- border adjustments
  - free allocation vs 269–73
  - tax adjustments 180, 181, 236–8
- borrowing 177
- Bosello, F. 4–5
- Bosnia and Herzegovina 75
- Brundtland Report 171
- Budget Approach 174
- Buehn, A. 6
- buildings 27
  - large 161–2
- business-as-usual scenario 249–50, 253
- business tax 54, 64
  - Corporate Tax Law in Spain 122–9
- buy-back mechanism 266–7
- cap
  - absolute and relative 270
  - design of an ETS 168, 174–5, 181
- cap-and-trade 108–11
- capital costs, accelerated depreciation for 94–5
- capital mobility 5, 14
- capital tax reforms 11–13
- car taxes *see* vehicle taxes
- carbon dioxide emissions
  - current trends 202
  - effects of carbon tax in Sweden 222
  - Northeast Asia 149, 201, 202, 217
  - public awareness 203, 204, 206
- Carbon Farming Initiative (Australia) 184–98, 262, 263
- carbon leakage 232, 235, 240, 247–60
  - Australia 263–73
    - free allocation vs border adjustments 269–73
  - business-as-usual scenario 249–50, 253
  - discounting 251, 253–4
  - future climate relevant developments 252–4
- carbon maintenance obligations 194
- carbon taxes 63
  - effect on R&D expenditures in Sweden 220–29
  - and employment in Spain 9–13
- EU
  - and border tax adjustments 236–8
  - Draft Directive of 1992 231–2
  - new proposal 238–42
  - Slovenia 74
- Carraro, C. 4–5
- Carraro, F. 35
- cement 271
- certificates of entitlement 188
- certified emission reductions (CERs) 117, 156
  - Korea 158–9
- China 149–50, 235–6
  - breakdown of tax revenue 54
  - carbon dioxide emissions 201, 202, 217
    - public awareness of environment quality and 203, 204, 206
  - emissions trading scheme 156–8, 162–4

- CDM 156, 157, 162
  - environmental exchange institutes and voluntary ETS 156–8, 162
  - pilot for a national ETS 158, 164
- taxation reform for promoting low carbon green growth 53–66
  - combined environmental tax and charge policy 60–61
  - current practices of ETR and EFR 54–6
  - design framework for integrated and independent environmental tax 61, 62–4
  - ETR opportunities and barriers 58–9
  - implementing ETR 59–61
  - roles of ETR in promoting low carbon green growth 56–8
- willingness to pay for environmental policies 203–6
- choke price 249, 255
- Clean Air Act (CAA) (US) 104–5
  - BART requirements 103, 105–7, 108, 110–11, 112–13
  - FIPs 104, 106, 111–14
  - Regional Haze Rule (RHR) 105, 106, 108
  - SIPs 104, 105, 106–7, 108, 110, 111–13
- Clean Development Mechanism (CDM) 117
  - China 156, 157, 162
  - Korea 159
- climate change mitigation 22, 24, 26–7
- clinker 271
- closure rules 265
- coal 223
  - environmentally harmful subsidies in the Spanish electricity sector 134–43
  - international prices 136
  - mining in Australia 268–9
- coal bed methane 89, 90
- coal seam gas (CSG) fracking 91–3
- Combet, E. 75
- command-and-control approach 104
- 'common practice' test 190, 195
- competitive distortions 169–70
- competitiveness 18, 20
  - Australia's Jobs and Competitiveness Program 261, 263–7, 269, 270
  - China and ETR 58
  - EU carbon tax Draft Directive and loss of 232
- compliance monitoring 179
- compliance periods 178–9
- computable general equilibrium (CGE) models 4–5, 248
- conditionality 232
- confidence in government 209–17
- construction fees 37, 43, 44, 47
- consumption taxes 38, 39, 64
  - electricity 42, 43
  - final energy consumption taxes 36–7, 46
  - natural gas 42, 43
- Contraction and Convergence approach 174–5
- conventional natural gas 89, 90
- convergence 18, 20–21
- cooperation 18
- cordon pricing 41
- corporate social responsibility (CSR) 164
- corporate tax law (CTL), Spain's 122–9
- cost of compliance 107, 113
- cost recovery 77
- coverage
  - Australia's Carbon Pricing Mechanism 262–3
  - design of an ETS 168, 172–4, 181
- Cox, A. 132
- crediting period 193
- cross-border intra-group operations 125, 129, 130
- Czech Republic 70–74, 75–6
- decay 88
- decentralized environmental taxation 33–49
- deficit reduction 78–9
- Denmark 72
- desert-based justice 171
- destination principle 237
- development fees 37, 43, 44, 47
- Di Maria, C. 248
- diesel excise duty 42

- differentiated transport fuel excise
  - taxes 81–2
- direct pollution tax 62
- discounting 251, 253–4
- distributive justice 170
- district heating sector 222
- double dividend 3
  - employment 3–16
- downstream allocation 270
- downstream ETS 173
- drilling 89–90
  - potential restrictions in the US 95–6
- dynamic efficiency 220
- dynamic models 248, 253–4
- earmarked taxes 34, 35, 37–8, 46
  - Italy 43–4, 46
- earmarking of funds 19, 20
  - for environmental priorities 28
  - and sustainable development 20–21
- eco-innovation in industries 23, 26
- ecological compensation policy 56
- ecological effectiveness 167–83
- ecological tax 63
- economic barriers to ETR 59
- economic efficiency 167–83
- economic structural change 57–8
- education, and WTP 209–17
- effectiveness, ecological 167–83
- efficiency
  - dynamic 220
  - economic 167–83
  - energy 76–7
  - resource 29
- Egenhofer, C. 235, 238
- electric generating units (EGUs) 110–11
- electricity 133–4
  - consumption tax 42, 43
  - Spanish electricity sector 133, 134–44
  - generation costs 142–3
- Ellis, J. 133
- emission reduction units (ERUs) 117
- emission rights
  - EU ETS 117–31, 233–4
  - accounting problems 118
  - classifying 119
  - initial valuation 119
  - subsequent valuation 119–20
  - valuation in Spain 123–5
- emissions avoidance offsets projects 187, 191–2
- emissions intensive trade-exposed (EITE) industries 261, 263–73
- emissions trading schemes (ETs)
  - Australia
    - Carbon Farming Initiative and 184–98
    - Carbon Pricing Mechanism 185, 261–3
  - design 167–83
  - features and criteria 168–71
  - recommendations 180–82
  - requirements for effectiveness, efficiency and social justice 172–80
  - EU *see* European Union Emissions Trading Scheme (EU ETS)
  - international 114
  - Northeast Asia 149–66
    - China 156–8, 162–4
    - Japan 150–55, 159, 162–4, 182
    - Korea 158–64
  - visibility protection in the US 103, 107–11, 114
- employment
  - Australia's Jobs and Competitiveness Program 261, 263–7, 269, 270
  - double dividend 3–16
  - evidence for in Spain 5–14
  - theory 3–5
- energy consumption trends 202
- energy efficiency 76–7
- Energy and Environment Reports 29
- energy-intensive products 60
- energy market channel leakage 247–60
- energy pricing 77
- energy taxes 40
  - ECA 71–2, 73–4
  - effects on R&D expenditure in Sweden 220–29
  - and employment in Spain 6–8, 13
- EU
  - Draft Directive of 1992 231–2
  - new proposal 238–42
  - final energy consumption taxes 36–7, 46

- enterprise income tax 54
- environmental awareness 59, 203, 204, 206
- environmental charge, combined with environmental tax 60–61
- environmental concerns
  - but unwillingness to pay 205, 206, 207–17
  - fracking 91–3
- environmental cost, internalizing 56
- environmental exchange institutes 156–8, 162
- environmental fiscal management 58
- environmental fiscal reform (EFR)
  - China 53–6
  - EU 69–70
- environmental protection
  - raising funds for in China 57
  - Sweden
    - costs 225, 226, 227
    - investment 225, 226, 227
- Environmental Protection Agency (EPA) (US) 103, 104, 105, 107, 114
  - BART Guidelines 106
  - emissions trading 103, 107–11, 114
  - and failure to submit plans
    - addressing regional haze 111–13
- environmental taxation
  - categories 34, 35, 46
  - decentralized 33–49
    - Italian fiscal system and the role for environmental taxation 38–46
  - and fiscal federalism 34–8
- environmental taxation reform (ETR)
  - China 53–66
  - and the employment double dividend 3–16
  - Europe and Central Asia 67–86
  - framework conditions for implementation 68
- environmentally harmful subsidies (EHS)
  - China 60
  - on fossil fuels 132–45
  - identification within the ERDF 21–8
- equality 171
- Estonia 70–74, 75–6
- EU acquis* 70
- Europe and Central Asia (ECA) 67–86
  - ETR in the EU-10 and EU
    - candidate countries 69–76
  - potential for ETR in the rest of ECA 76–9
  - starting points for ETR 79–82
- European Regional Development Fund (ERDF) 18
  - identification of potential environmentally harmful subsidies 21–8
  - results of the mid-term evaluation 19–21
- European Semester 69–70
- European Union (EU)
  - Annual Growth Survey 69–70
  - candidate countries 68
  - ETR in 70–76
- Common Consolidated Corporate Tax Base (CCCTB) Directive proposal 129, 130
- ‘Community Strategic Guidelines (CSG) on economic, social and territorial cohesion’ 18
- Energy Tax Directive (ETD) 70
- Environmental Impact Assessments (EIAs) 19
- environmental policy legislation framework 69–70
- environmental tax reform 69–76
- environmentally harmful subsidies 132
  - identification within the ERDF 21–8
- Europe 2020 Strategy 29, 69–70
- Eurovignette Directive 70
- National Strategic Reference Frameworks (NSRF) 18
- Operational Programmes (OPs) 18–19
- price vs quantity instruments 230–43
  - carbon tax and border tax adjustments 236–8
  - Draft Directive of 1992 for a carbon-energy tax 231–2
  - new proposal for a carbon-energy tax 238–42
- Roadmap to a Resource Efficient Europe 29

- Strategic Environmental Assessments (SEAs) 19
- structural and cohesion policy 17–32
  - allocation of resources 22–4
  - Cohesion Fund 18
  - European Social Fund (ESF) 18
  - evaluation process 19
  - review of the evaluation process 29
  - structure and priorities of the Structural and Cohesion Funds 17–19
  - see also* European Regional Development Fund (ERDF)
  - tax trends 38–41
- European Union Emissions Trading Scheme (EU ETS) 70, 117–31, 167, 182, 233–4, 235–6, 240
  - accounting procedures for intra-group operations 121–2
  - accounting for rights 118–20
  - related party transactions
    - assessing the tax regulations on 126–9
    - and emission rights in the field of taxation 122–5
  - Spanish electricity sector and environmentally harmful subsidies 135–43
- European Unit Allowances (EUAs) 117
  - Spanish electricity sector 135, 137, 138–43
- excise duties 38
- exports
  - BTA on 237
  - tax refunds 60
- Fæhn, T. 5, 6–9, 13
- fair value 119, 121–2, 123
- fairness
  - design of an ETS 167–83
  - willingness to pay and 209–17
- Federal Implementation Plans (FIPs) 104, 106, 111–14
- Federation of Korean Industries 161
- feral animals 191, 192, 195
- finances 179
- Finland 71–2
- fiscal consolidation 78–9
- fiscal federalism 34–8
- fixed-price sales 175–6
- forestry 184–98
- fossil fuels
  - carbon/energy taxes in Sweden 222, 223
  - environmentally harmful subsidies 132–45
  - see also* coal; natural gas; oil
- France 75, 91, 96
- Franzen, A. 208
- free allowance allocation 175–6
  - Australia 264, 265
  - vs border adjustments 269–73
- fuel consumption 249–50, 253, 258–60
- fuel prices, and carbon leakage 247–60
- fuel taxes
  - heating 73–4, 239–40, 241
  - transport 42, 55–6, 57, 72–3, 78–82, 239–40
- future climate relevant developments 252–4
- G-20 132
- Garnaut, R. 266, 267, 269, 272
- Gas Industry Social and Environmental Research Alliance (GISERA) 93
- GDP PPP per capita 207
- gender, and WTP 209–17
- General Agreement on Tariffs and Trade (GATT) 58, 272
- Report on Border Tax Adjustment 237
- Germany 71, 72, 78, 96, 203–6
- Ghalwash, T. 227
- Global Subsidies Initiative 133
- González-Eguino, M. 5, 9
- Gothenburg objectives 20–21
- government
  - confidence in 209–17
  - responsible for reducing pollution 205, 206, 207–17, 218
  - revenues and ETR 73
- gradualism 61, 231
- grandfathering schemes 176
- Grattan Institute 267, 268–9, 273
- Greece 78–9
- green public procurement 28
- Green Swap 222

- greenhouse gases (GHGs)
  - coverage of an ETS 172–3
  - emissions 67, 149
    - see also* carbon dioxide emissions
  - emissions trading schemes *see* emissions trading schemes (ETSs)
- Gros, D. 235, 238
- growth and jobs priorities 20–21, 29
- harmful subsidies *see* environmentally harmful subsidies
- heating fuel taxes 73–4, 239–40, 241
- Helm, D. 235
- horizontal drilling 90
- horizontal EHS 135–7
- household sector 202
- Hungary 81
- hydraulic fracturing (fracking) 87–99
  - environmental concerns 91–3
  - potential restrictions on drilling 95–6
  - process 89–90
  - tax incentives 94–5
- hydrocarbons 88
- hydroelectric power 139, 141, 142
- IFRIC 3 118, 119, 120
- Ikkatai, S. 207–8
- implicit subsidies 132, 140–42
- imports 58
  - BTA on 237–8
- incentive (Pigouvian) taxes 4, 34, 35, 36, 41, 46
- incentives, tax 94–5
- income, and WTP 203, 204, 206, 207–17, 218
- independent environmental tax 61, 62–3
- Independent Expert Scientific Committee (IESC) 93
- India 202
- industry 164, 202
  - carbon/energy tax in Sweden and manufacturing industry 222, 223, 224
  - Korea 161–2, 163
- informal sector 4, 5, 78
- Spain 6, 9–14
- infrastructure
  - transport 22, 23, 25–6
  - waste and water 22, 23, 26, 27–8
- initial allocation of allowances 168, 169, 175–8, 181
- innovation 221
  - eco-innovation in industries 23, 26
- institutional/political mechanism 59
- intangible assets 119
- intangible drilling costs 94
- integrated environmental tax 61, 64
- intensity targets 175
- intergenerational justice 171
- Intergovernmental Panel on Climate Change (IPCC) 67
- International Accounting Standards Board (IASB) 118
- International Financial Reporting Standards (IFRS) 118
- international GHG trading regimes 114
- international trade 58
  - see also* General Agreement on Tariffs and Trade (GATT); World Trade Organization (WTO)
- intra-generational justice 171
- intra-group operations 121–2, 125
  - cross-border 125, 129, 130
- introduced animal emissions offsets projects 187, 191–2
- involuntary unemployment 4, 6, 14
- Ireland 76, 79
- Italy
  - constitutional reform 44–5
  - fiscal system 34, 38–46
    - local environmental taxes 41–6
    - tax trends 38–41
- Jaffe, A.B. 220
- Japan 149–50
  - carbon dioxide emissions 201, 202, 217
  - determinants of WTP 201–18
  - ETS 150–55, 159, 162–4, 182
    - domestic ETS trial 150, 151–4, 162
    - intermediate proposal 154, 155, 163
    - verified emission reduction (J-VER) scheme 150, 154
    - voluntary (J-VETS) 150, 151, 152
- Joint Implementation (JI) 117

- Kazakhstan 80
- kerosene 82
- Kiulia, O. 71, 73
- Konisky, D.M. 208
- Korea, South 149–50
  - carbon dioxide emissions 201, 202, 217
  - determinants of WTP 201–18
  - ETS 158–64
    - Allocation Committee 161
    - pilot 161–2
    - proposal 159–61
    - Target Management System (TMS) 159–60, 161, 163
    - voluntary GHG reduction programme and CDM implementation 158–9
- Kyoto ACCUs 186
- Kyoto Protocol 114, 117, 149, 167, 188
  - limits of the Kyoto approach 234–6
- Kyrgyz Republic 80
- labour market 73
  - employment double dividend 3–16
- labour taxes 38, 39, 78
  - reform in Spain 11–14
- land grant taxes 37, 43, 44
- land sector activities 184–98
- landfill legacy offsets projects 187, 191
- landfill tax 41
- large buildings 161–2
- Laurent, E. 234
- Le Cacheux, J. 234
- liability recognition 120
- licensing taxes 43, 44
- ‘like’ products 237–8
- liquefied natural gas (LNG) 268–9
- Lisbon objectives 20–21, 29
- local environmental taxes 41–6
- lump sum transfers (LST) tax reform 11–13
- mandatory ETS 159–62, 163
- Manresa, A. 6–9, 13
- manufacturing industry 222, 223, 224
- marginal abatement costs 169
- Markandya, A. 71, 73
- market transitions 69, 76
- market value 121–2, 124
- Marx, K. 171
- McKinsey & Co. 76–7
- methodology determinations 188–9, 195
- Meyer, R. 208
- Milan Ecopass 41
- mobility between formal and informal labour sectors 9–10, 11, 12
- mobility related taxes 37, 43, 44
- Moldova 82
- monitoring 168, 179–80, 181
- Morocco 205, 206
- Most Favoured Nation principle 272
- multilateralism 272
- Murray-Darling Basin 91–2
- National Treatment principle 272
- native forest protection projects 193
- natural disasters 194
- natural gas 223
  - consumption tax 42, 43
  - environmentally harmful subsidies in the Spanish electricity sector 134–43
  - hydraulic fracturing *see* hydraulic fracturing
  - international prices 136
  - liquefied (LNG) 268–9
  - process of formation 87–9
- natural heritage 22, 24, 26
- negative list 190, 192
- Netherlands, The 128
- New Mexico 112
- New South Wales, Australia 95
  - Inquiry into CSG 92–3
- nitrogen oxides 107, 108, 110–11, 112
- non-energy market channel of leakage 247–8
- Northeast Asia emissions trading schemes 149–66
  - analysis of progress of 162–4
  - China 156–8, 162–4
  - Japan 150–55, 159, 162–4, 182
  - Korea 158–64
- nuclear power 139, 141, 142
- OECD 67, 132, 221, 248
  - Model Tax Convention 123, 124, 129, 130
  - ‘quick scan’ tool 21



- Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations 122, 123, 124–5, 126, 128, 129
- offsets 177–8
- offsets integrity standards 189
- offsets projects 187–8, 190–92
- oil 223
  - falling prices 81
  - production during fracking 96
  - tax on oil and oil products 8, 13
- ozone 111
- Palmer, K. 220
- paper and pulp industry 224–8
- parking pricing 37, 43, 44
- particulate matter (PM) 107, 110, 111
- Pearce, D. 3
- penalties
  - design of ETSs 168, 179–80, 181
  - related party transactions and emissions rights 127
- pensions 78
- percentage depletion allowance 94
- permanence arrangements 193–4
- permeability 89
- petroleum *see* oil
- photosynthesis 88
- phytoplankton 87–8
- Pigouvian (incentive) taxes 4, 34, 35, 36, 41, 46
- policy coherence 29
- political developments 252–4
- political/institutional mechanism 59
- political parties 113–14
- pollutants, coverage of in an ETS 172–3
- polluter-pays principle 172, 173, 174, 178
- polluting product taxes 56–7, 62–3
- pollution levy 55
- Poltimäe, H. 72, 73
- porosity 89
- positive list 190–92, 195
- power stations' windfall profits 137–43
- precautionary principle 93
- preferred policy goals 209–17
- prescribed native forest protection projects 193
- price instruments
  - vs quantity instruments 230–43
  - see also* carbon taxes; energy taxes
- price limits 179
- primary adjustment 127
- principled approach 267
- procedural justice 170
- production switching 235
- project proponents 188
- property rights 169
- proppant 90
- public attitudes, and WTP 203–18
- public awareness 203, 204, 206
- public institutes 161–2
- public procurement, green 28
- pulp and paper industry 224–8
- quantity instruments
  - vs price instruments 230–43
  - see also* emission rights; emissions trading schemes (ETSs)
- quantity limits 178
- Queensland, Australia 95
- race to the bottom 34–5
- rail transport 23, 25, 26
- Rawls, J. 171
- recognised offsets entities 188
- redistributive justice 170–71
- Regional Greenhouse Gas Initiative (RGGI) 182
- regional haze 104–5, 106, 108
  - failure to submit plans addressing 111–13
- regressivity problem 37, 46
- rehabilitation and regeneration projects 22, 24, 26
- Reinaud, J. 263–4
- related party transactions 122–30
  - assessing the tax regulations on 126–9
  - and emission rights 122–5
- relative cap 270
- religiosity 209–17
- relinquishment requirements 193–4
- renewable energy 239
  - EU structure and cohesion policy 22, 23, 26
- reporting 192–3

- research and development (R&D)
  - expenditure 220–29
- resource efficiency 29
- resource-intensive products 60
- resource tax 64
- retrofit technology 103, 105–7, 108, 110–11, 112–13
- revaluation method 119–20
- revenue-neutrality 45, 231
- revenue raising taxes 34, 35, 36–7, 46
  - Italy 42–3, 46
- revenue recycling 234
- risk of reversal buffer 193
- road transport
  - Bosnia and Herzegovina 75
  - finances and penalties related to the road code 43
  - infrastructure investments 25–6
  - road pricing 37, 43, 44
  - vehicle taxes *see* vehicle taxes
- Roßnagel, A. 168
- royalties 95
- Russia 77, 78, 79, 80, 202
  
- safety valves 179
- Sancho, F. 6–9, 13
- Schneider, F. 6
- secondary adjustments 127–8, 130
- sector structural adjustment 57
- sectoral analysis of carbon leakage 268–9
- sedimentary rock 88–9
- sequestration offsets projects 187, 190–91
- shale gas 89, 90, 96
- Shanghai Environment and Energy Exchange 157
- signalling effects 227–8
- Sijmi, J. 137
- skilled labour 4–5, 8–9, 13
- Sky Trust 177
- Slovenia 74, 75–6
- small industrial installations 240
- social barriers to ETR 59
- social justice 167–83
- social security contributions (SSCs) 71, 73, 78
- Société de Gestion Industrielle (SGI) v. Belgian State* 128–9
- solar energy 87–8, 89
  
- Spain
  - Corporate Tax Law (CTL) 122–9
  - electricity sector 133, 134–44
    - environmentally harmful subsidies 134–7
    - windfall profits 137–43
  - environmental tax reform and double employment dividend 5–14
  - related party transactions and emission rights 122–9, 130
  - special fees 35, 37–8, 43–4, 46
    - Italy 43–4, 46
  - spillovers, environmental 34, 35
  - State Implementation Plans (SIPs) 104, 105, 106–7, 108, 110, 111–13
  - static models 248–9, 253–4
  - steel industry 268–9
  - Steenblik, R. 132
  - stock 119
  - stock exchange trading 178
  - subsidies, environmentally harmful *see* environmentally harmful subsidies
  - sulphur dioxide 107, 108, 110–11, 112
  - sustainability
    - ETS design 167–83
    - EU structural and cohesion policy and sustainable development 17–32
      - earmarking of funds and sustainable development 20–21
  - sustainable development indicators 29
  - Sweden 71, 72, 75, 82, 205, 206
    - carbon tax/energy tax 220–29
    - effects on R&D expenditures 224–8
    - effects on reducing carbon dioxide emissions 222
- tangible drilling costs 94
- tax incentives 94–5
- taxation
  - carbon taxes *see* carbon taxes
  - energy taxes *see* energy taxes
  - environmental *see* environmental taxation; environmental taxation reform (ETR)

- related party transactions and
  - emission rights 122–5
  - assessing the tax regulations 126–9
  - different accounting and taxation regulations 125
  - issues in cross-border intra-group operations 129
  - WTP with tax 203–6, 207–17, 218
- technical barriers to ETR 59
- technological developments 252–4
- territorial cohesion 17–18
- third party comparable prices 125
- Tianjin Climate Exchange 157
- tight sands gas 89, 90
- tourism 37
- trading system 168, 178–9, 181
  - see also* emissions trading schemes (ETSs)
- transaction costs 169
- transfer and acquisition, justice in 170
- transfer pricing 122–30
- transport 202
  - air travel 82
  - environmentally harmful subsidies 133–4
  - fuel taxes 42, 55–6, 57, 72–3, 78–82, 239–40
  - infrastructure 22, 23, 25–6
  - rail 23, 25, 26
  - road *see* road transport
  - urban 23, 25
  - vehicle taxes *see* vehicle taxes
- Transport and Environment Reporting Mechanism (TERM) 22, 29
- Turkey 78, 79–80, 81, 82
- Turkmenistan 80
- Ukraine 78, 80, 81
- Ulsan Chemical HFC23
  - Decomposition Project 159
- unconventional natural gas 89–90
  - see also* hydraulic fracturing (fracking)
- unemployment
  - ECA region 78
  - environmental tax reform and the employment double dividend in Spain 3–16
  - uneven fiscal residuum 37, 46–7
- United Kingdom (UK) 82
  - fracking 96
  - fuel duty escalator (FDE) 81
- United States (US) 79, 159, 202
  - Clean Air Act *see* Clean Air Act (CAA)
  - Clean Air Interstate Rule (CAIR) 110, 111
  - Cross-State Air Pollution Rule (CSAPR) 110–11
  - EPA *see* Environmental Protection Agency (EPA)
  - fracking
    - potential restrictions on drilling 95–6
    - tax incentives 94
  - Interstate Transport Rule 111, 112
  - natural gas reserves 87
  - public attitudes and preferences
    - for environmental policy instruments 203, 204–5
  - Tax Act 1990 94
  - transport region states 110
  - visibility 103–16
    - BART 103, 105–7, 108, 110–11, 112–13
    - emissions trading 103, 107–11, 114
    - failure to submit plans addressing regional haze 111–13
    - Federal Implementation Plans (FIPs) 104, 106, 111–14
    - Regional Haze Rule (RHR) 105, 106, 108
    - State Implementation Plans (SIPs) 104, 105, 106–7, 108, 110, 111–13
  - unskilled labour 4–5, 8–9, 13
  - upstream allocation 270–71
  - upstream ETS 173
  - urban transport 23, 25
- validity of allowances 168, 175–8, 181
- valuation of emission rights 119–20
  - initial 119
  - Spain 123–5
  - subsequent 119–20
- value-added tax 54, 60, 64

- Van der Werf, E. 248
- vehicle taxes
- based on engine distribution 60
  - ECA 72–3
  - fuel taxes 42, 55–6, 57, 72–3, 78–82, 239–40
  - insurance premium tax 42
  - ownership taxes 36–7, 42, 43, 46
  - registration tax 42
- verified emission reductions, in Japan (J-VER) 150, 154
- vertical drilling 89, 90
- vertical incentives/subsidies 134–5
- Vietnam 203–6
- voluntary emission reductions (VERs)
- China 157–8, 162
  - Korea 158–9
- voluntary emissions trading schemes
- 173–4
  - Japan (J-VETS) 150, 151, 152
- voluntary unemployment 14
- Völk, A. 73
- wage curve 6, 8
- waste incineration 22, 27–8
- waste and water infrastructure 22, 23, 26, 27–8
- water
- abstraction charges 41
  - and hydraulic fracturing 90
- Weitzman, M.L. 230
- welfare-based justice 171
- willingness to pay (WTP) 201–19
- empirical analysis 207–17
  - public attitudes and preferences for environmental policy instruments 203–7
- windfall profits 234
- Spanish electricity sector 137–43
- World Trade Organization (WTO) Agreement on Subsidies and Countervailing Measures (WTO-SCM) 132
- principles 272
  - proposed new code applicable to climate change policy 272
- WVS (World Values Survey) 208
- Zambia 204
- Zatti, A. 35
- zooplankton 88