Index

ad valorem resource tax (fixed-rate) 216, 218, 223–4
air ticket tax 152
allowances
  auction reserve prices 123, 139–40, 142
  Californian 278–80, 286
demand and supply of 129
  solutions for mismatch in EU 129–31
direct price control 119–20
Korean 290–291
market 131–2, 135
as new currency 119
organized theft of 119
over-allocation 116–17, 127
over-supply 128–9, 132–3
permanently retiring 134–5, 140
price ceiling 120
price collar 122
price floor 120–122
price of 115–16, 126, 131, 132, 141
reducing overall level 136
scarcity management 137–8
amount-on-volume taxation 216, 218, 223–4
Annual Growth Survey (AGS) 158
Armington approach 85
arm’s length principle 99, 100, 103–4, 107
Asia-Pacific Economic Cooperation (APEC) 147, 159
auction
  early 128–9
  proportions 290, 291
  reserve prices 121, 139–40, 141–2
  revenues 279–80
right to, borrowed allowances 119
Australia
  application of macroeconomic frameworks to environmental taxes 28–32
carbon pricing mechanism 124, 141, 196
energy taxes
  need for 39–40
  precautionary principle in designing 46–9
environmental taxes 189–92
classification 196, 197
global community principles 40–43
greenhouse gas emission reduction goal 191
luxury car tax 190, 191–2, 196, 197
national strategy for sustainable development 43–5
oil sustainability 39, 40–45, 47, 48, 190, 197
and rare earths 71, 75, 76
Baumol–Oates theory 6–7, 9, 11, 12, 13
bauxite 74, 80
BCA see border carbon adjustment
behaviour, investment 132
behavioural change 40, 41, 67, 126, 155–6, 187, 188, 191–2, 194, 198, 301–2
behavioural economics 159–60, 161–2
benefit principle approach 102–3, 107
BMU (German Federal Ministry for the Environment)
  acceptance of DSD system 173–7
  call for establishment of DSD system 178
draft Packaging Ordinance 171, 173, 174, 177, 179
fundamental policy 174
negotiations with Lambsdorff 171, 174
spurred into action on packaging waste 168
Environmental taxation and green fiscal reform

border carbon adjustment (BCA) 82
analysis data and assumptions 86
model description 85–6
simulation scenarios 86–7
inequality issue 83–5, 95, 96
results carbon leakage effect 87, 89–91, 95–6
impacts on international competitiveness 87, 88, 96
study conclusions 91–2
comparability of domestic climate policies 92–3
WTO compatibility 93–5, 96
border tax adjustment (BTA) 82, 85, 86–91, 92–6, 202–3, 211, 213
British Columbia’s carbon tax comparison with California cap-and-trade program 285–6
design 281–2
effects, evaluation and recommendations 282–5
Brundtland Commission 39, 40–41, 44
California cap-and-trade program comparison with British Columbia’s carbon tax 285–6
design 277–9
effects, evaluation and recommendations 279–81
imposition of eco-fees 11–12
reserve price auction 141
State limits on new taxes 16–17
California Air Resources Board (CARB) 277–8, 279–80
Canada climate policy strategy 273
Federal Liberal Party 286
fuel consumption and emissions 282–3
mining tax 215
Quebec 141, 277
see also British Columbia’s carbon tax

cap-and-trade programmes California 277–81, 285–6
and environmental effectiveness 142
EU-ETS as largest 113
vs. fee regime system 20
as form of BCA measures 82
main advantage 118
over-estimation of costs 121
price collar for GHG 122
Tokyo 141
upside price risk 120
carbon leakage avoiding 56, 66
companies’ evaluations 298
and competitiveness concerns 82, 92–3, 96
effect 87, 89–91
free allocation 291
triggering mechanisms 95–6
carbon pollution fee proposal 17–18
carbon prices
British Columbia 283
causes of instability 292
companies’ evaluations on stability 297–8
comparability of domestic climate policies 92–3
development of 115–16
impact on 116–17
need for price stabilization 122–3
price management 117–22
program induced increases 286

carbon tax
Australia 190
British Columbia 281–6
China 202–12
comparison to emissions trading scheme 32, 83, 114
Denmark 230
Ireland 151
Italy 230–240
Japan 85–96
Norway 230
Scandinavia 202
Sweden 155, 230
Switzerland 6

China Accession Protocol 69, 72–3, 78
carbon leakage 91
export restrictions 69–70
Rare Earths dispute 70–71, 74–6, 77, 78
Raw Materials dispute 71–4, 75, 78
national emissions changes 89
resource tax reform in Xinjiang 214–24
switch to formula-based pricing 156
world’s largest primary energy consumer 224
China carbon tax
obstacles to implementing 207
detrimental impact on economy and development 208
interaction with existing environment-related taxes 209
international competitiveness 208–9
social and income distribution concerns 209
pressure to curb emissions 202, 212
strategies to ease resistance to 209–10
low initial tax rate with progressive increase 210–211
maintain overall tax burden 211
special tax relief for energy-intensive industries 211
tax relief and subsistence for low-income households 211–12
as tool for abatement of emissions 203–4
collection of taxes 206–7
tax base 204–5
tax rate 205–6
use of revenue 207
Clean Air Act 18
Clean Energy and Security Act 82, 202
cclimate change levy (CCL) 192, 193, 196, 202–3
cclimate policies
domestic 83–96
EU ETS as instrument of 113, 122
Korean targets 289, 290
regional market-based 273–86
Climate Protection Act 17–18
CO2 emissions
China’s capacity to monitor 205
China’s target to reduce 202
Correlation with tax base 276, 281–2
impacting environment 229
Korean companies 293–4
of motor vehicles 47, 48, 55
multi-jurisdictional attempt to reduce 127–8
non-correlation with tax base 57, 58, 59, 60, 64, 281
price determined by regulator 114
result of fuel combustion 191, 213, 230
role of taxes to reduce 56, 65
see also greenhouse gas emissions
Coase theorem 264
Cobb-Douglas function 25, 85
commerce clause 17
compensatory measures 149, 209, 211
competitiveness
BCA, aiming to address 82, 96
and carbon leakage concerns 82, 92–3, 96
cconcerns from energy-intensive industries 210–211, 282, 292, 297, 298
European, fear of loss of 56
international impacts on 87, 96, 207
as obstacle to implementing carbon tax 208–9
price, in Italy 235, 238, 239–40
computable general equilibrium (CGE) analysis 85–7, 247
cost allocation scheme viability 172
cost of living, and subsidy reform 156, 161
Cottrell, J. 158
Country-Specific Recommendations (CSRs) 158–9
CRC energy efficiency scheme 192–4
 crude oil
Australia 41, 43, 190, 197
China 209, 214–24
imports 206
Czech Republic 153
decision making see Duales System Deutschland (DSD) system
Denmark
carbon tax introduction 230
cost of four-wheel drive 48
ergy taxes 60
full cost pricing 156
one-off registration taxes 47
Environmental taxation and green fiscal reform

direct tax incentives (DTI) 260–261, 264, 265–7, 268
domestic water charging 151
‘double dividend’ hypothesis 188, 227–8, 239, 265, 277
DSD system see Duales System Deutschland system
Duales System Deutschland (DSD) system 166–7
BMU’s acceptance of 173–5
economic sector attitude change 172–3
feasibility of cost allocation structure 172
‘Green Dot’ fees 169, 178
Lambsdorff’s proposal 170–171
background 171–3
and packaging ordinance 167–9
recycling business developments 172
study conclusions 177–8
subsequent developments 177
urgency of establishing 175–7

Earth Summit 41, 159
eco-fees
benefits for justification of 9
distinction between taxes and fees 8–9
as economic rationale 8–12
effect of benefit rationales on design of 12–14
government
as environmental regulator 10–12
as licensor 10
as trustee 9–10
implications of broader approach 19
legal, of tax-fee distinction 15–17
shift in public perception 14–15
shift in theoretical focus 14
summary of design components 13
efficiency criteria 134, 135, 136, 137, 138–9, 140
emission market 131–2
emissions trading systems 141
emissions trading theory 114–15
endowment effect 160
energy-intensive and trade-exposed (EITE) industries 85, 86
Energy Taxation Directive 40, 46
energy taxes
amendments to privileges 152
in Australia 46–9, 190
design elements of 275
as environmental tax 190
luxury 40, 47, 48
need for 39–40
precautionary principle in designing 46–9
regressive effect of 276
in United Kingdom 193
see also EU energy taxes
environment
and arm’s length principle 99, 100, 103–4, 107
and formulary apportionment 104–5
limits of a ‘green’ formula for 105–6
Environment Protection and Biodiversity Conservation Act (EPBC Act) 45
environmental economic instruments 5, 187, 210, 263–6, 274
environmental factor
definition as sensitive issue 105, 107
multinationals manipulation of 106
environmental law and multinationals 100–101
environmental-macroeconomic framework 26–8, 32, 37–8
environmental mitigation 11
environmental pricing
carbon pollution fee proposal 17–18
eco-fees
as economic rationale 8–12
effect of benefit rationales on design of 12–14
implications of broader approach to 14–17
need for new rationales 5–8
environmental protection policy 70–71
environmental regulator, government as 10–12
environmental resources, government as trustee of 9–10
environmental tax subsidy reform see subsidy reform
environmental taxation
characteristics 197
classification 196–7
definitions of 8–9
Index

in Australia 190–192
international 188–90
SEEA 188–9, 190, 192, 197
in United Kingdom 192–5
and eco-fee design components 13
economic theories of 5–8, 18–19, 229
environmental taxes illustration 28–9
analysis 29–31
policy implications 31–2
simulations 29
and fiscal reforms 32
idea based on 98
importance of assessing effectiveness 198
and macroeconomic frameworks 24–8
purpose of 187–8
equal capacity to earn income approach 102, 107
EU energy taxes 55–6
framework 56–9
gaining environmental purpose 65–6
inherent logic to taxation system 58–9
lack of environmental component 57–8
role on ‘greening’ 59–60
state aid rules and tax exemptions 61
influence of internal logic 62–4
state aid existence 61–2
EU ETDD (Energy Tax Directive) 55–6
and EU Member States 59–60
lack of harmonization with EU policies 57–8
lack of true environmental character 58–9
main goal of 57
need to refine environmental aspects 65–6
proposed revision of 40, 46
state aid rules and environmental tax exemptions adopted under 61–2
influence of internal logic 62–4
EU ETS (Emissions Trading System)
emission market 131–2
emissions from international aviation 82
emissions trading economic theory 114–15
Europe's experience of 127–31
evaluation of structural reform mechanisms 133–4
adding sectors 136
adjusting linear reduction factor 135–6
auction reserve prices 139–40
limiting offsets 136–7
permanently retiring allowances 134–5
price support 138–9
scarcity management 137–8
excess supply
European and international approaches 140–142
problem of 132–3
exempting activities covered by 63–4
incentivizing investment 126–7
investment behaviour 132
largest example of emissions trading 289–90
limitation of CO2 emissions guaranteed 58
and market forces imperfections 113–14
nature of 113
price management instruments 117–22
price-stabilizing provisions rationale 115–17, 122–3
revenue raised by 194
road transport sector excluded from 55, 65
source of increase in environmental taxes 193
EU Member States
auctions 123
diversity of energy product prices 56–7
greater legal certainty 66
market stabilization mechanisms 118
national emission caps 116, 128
role on ‘greening’ harmonized energy taxation 59–60
state aid rules and environmental tax exemptions 61–4
and State Aid Scoreboard 148
taxation of all forms of energy 58–9
taxes on road transport 55
use of CO2 related taxation 58
European Emissions Trading System
see EU ETS

European Union, as subsidy reform driver 158–9

excess supply
European and international approaches 140–142
problem of 132–3

export restriction disputes
Argentina: Hides and Leather 72
Canada-Herring and Salmon 71
China
Publications and Audiovisual Products 73
Rare Earths 70–71, 74–6, 77, 78
Raw Materials 71–4, 75, 78
Japan: Semiconductors 71
United States
Export Restrictions 72
Measures Treating Export Restrictions as Subsidies 72
Extended Producer Responsibility (EPR) concept 166–7, 171

formulary apportionment 100, 104–5, 106, 107

fossil fuels
British Columbia 281–2, 284
burning of 204, 212
carbon tax on 85, 86–91, 94, 204–5, 207, 208–9, 211
subsidy reform 149–50, 160
for transport, tax on 190, 193, 197
free on board price 152, 162

GATT Article I 94
GATT Article III 94
GATT Article VIII 72
GATT Article XI 72, 73, 74, 77
GATT Article XX 69, 72–4, 76–7, 94–5, 96

Germany
coal subsidy reform 157
economic stimulus package 151–2
introduction of carbon tax 230
see also Duales System Deutschland (DSD) system
global community principles 40–43
government
as environmental regulator 10–12

as licensor of limited-entry industries 10
power to impose costs 17
as trustee of environmental resources 9–10
‘Green Dot’ fees 169, 178
green tax approach 264–6
‘green taxes’ 31–2
greenhouse gas emissions
Australia’s reduction goal 191
charging fees for 10, 11
countries not subject to control 202
difficulties in taxing 275–6
effort to reduce 6
and emissions tradings systems 117, 126–8, 133, 141
environmental capital sink capacity 25, 28
European Trading Scheme 7
Korea’s trading scheme 289–305
and waste management 261
see also allowances; CO2 emissions
‘greening’
energy taxation 59–60
transfer pricing rules 105–6, 107

HM Treasury (HMT) 190, 192–5, 196, 198

India 89, 91
see also plastic waste management in India

Indonesia
fall of government 149
timing of fuel price increases 156
industrial waste taxation 245
estimation methods and data 249–51
estimation results
discussion and conclusion 256–8
final disposal 252–6
waste generation 251–2
in Japan 246–7, 248
literature review 247, 249
inequality issue 83–5, 91, 95–6
Inter-Governmental Agreement on the Environment (IGAE) 44–5
internalization 5, 6, 7, 12, 20, 103, 227
International Institute for Sustainable Development (IISD) 148–9, 153, 154, 156

Larry Kreiser, Soocheol Lee, Kazuhiro Ueta, Janet E. Milne and Hope Ashiabor - 9781783478163
Downloaded from Elgar Online at 12/08/2018 06:00:12AM
via free access
investment behaviour 132

Iran
- economic and political crisis 152–3
- pricing reforms 154, 156
- reform of fossil fuel subsidies 160

Ireland’s National Recovery Plan 151, 154

ISTAT macroeconometric model 228, 231–2, 233, 239, 241

Italian environmental tax subsidy reform 227–8
- carbon tax
  - macroeconomic effects of 230–232
  - simulations 234–9
  - transmission channels 232–3
  - policy implications 240
  - reasons for duty on petroleum products 229–30
  - simulations hypotheses 233–4
  - use of revenues to cut employers’ social contributions 235–8
  - use of revenues to finance income tax reduction 238–9
  - use of revenues to repay government debt 234–5
  - use of revenues to support investments 238
  - study conclusions 239–40

Japan
- border carbon adjustment study 85–96
- industrial waste taxation study 245–58
- mines product tax 215
- national emissions changes 89
- response to export restrictions 75

Kettner, C. 115–16, 118
Kitagawa, S. 167
Köppl, A. 115, 118

Korean GHG emissions trading scheme 289–90
- companies’ barriers to implementation 302–3
- companies’ behavioral changes in response to 301–2
- companies’ evaluations of merits 294–7
- of negative aspects 297–8, 299
- companies’ expectations for 303–4
- companies’ preparations for 298, 300
- debate for introduction of 291–2
- national emissions changes 89
- proposals and Bill of Korea 290–291
- questionnaire survey and samples 292–4
- study conclusions 304–5
- Kyoto Protocol 82, 84, 87, 96, 99, 191, 209–10

Lambsdorff, O.G. 170–173, 174–5, 177
landfill tax
- European Union 257
- Netherlands 247, 249
- United Kingdom 193, 194–5, 196, 246

see also industrial waste taxation

Leach v. National Parks and Wildlife Service 45

Leontief production function 85–6
likeness test 93–4
limited-entry industries 10
linear reduction factor adjustment 135–6, 140
liquidity management 118–19
Liu, X. 290
luxury car tax 190, 191–2, 196, 197

macroeconomic frameworks 24–5
- application to environmental taxes 28–32
- environmental 26–8, 37–8
- standard 25–6, 35–6
market-based climate policies
- British Columbia’s carbon tax design 281–2
- effects, evaluation and recommendations 282–5
- California cap-and-trade program
design 277–9
- effects, evaluation and recommendations 279–81
- comparative conclusions 285–6
design elements and criteria for 273–7
- Massachusetts formula 105
Milne, J.E. 16, 67
Environmental taxation and green fiscal reform

most-favoured nation (MFN) principle 94, 96
motor vehicles
- demand for 47–8
- energy tax to deter use of 48
- gas-guzzling 11, 42–3
- growth in sales 192
- implications of weight 47
- tax for luxury 190, 191–2, 196, 197
taxes deemed environmental 196, 197
multinationals 98–9
- abatement costs 104
- allocation of profits 105, 107
- under environmental law 100–101
- manipulation of ‘environmental factor’ 106
- risk of abuse of environmental factor 106
- under tax law 99–100
- transfer pricing rules 101–3
National Inventory Adjustment for Trade (NIAfT) 84–5, 86–96
National Strategy for Ecological Sustainable Development (NSESD) 44, 45
natural gas
- Australia 190
- China 204, 205, 206, 209, 214–24
- Iran 153
- as tax base 276
Netherlands
- introduction of carbon tax 230
- landfill tax 247, 249
- reform package 154
NIAfT see National Inventory Adjustment for Trade
North American regional market-based climate policy 273–86
Norway
- carbon tax introduction 230
- cost of four-wheel drive 48
- one-off registration taxes 47
- nuclear fuels tax 151–2
- nuclear power industry 10
OECD (Organisation for Economic Co-operation and Development) 6, 8, 32, 40, 48, 67, 98, 99, 100, 101, 104, 147, 149, 155, 157, 159, 166, 179, 187, 188, 189
Office for National Statistics (ONS) 190, 192–4
offsets
- California 278–9, 281
- levy for 138
- limiting 136–7, 140
oil sustainability
- in Australia 39, 40–45, 47, 48, 190, 197
- in China 206–7, 209, 212, 215–18, 220, 222–4
- pricing reforms 156, 162
- unsuccessful, in Ecuador 81
origination clause 15–16, 21
output changes 87–8
Packaging Ordinance
- adoption 177
- BMU’s draft formulation 171, 173, 174, 177, 179
- and DSD system 169
- imposition of responsibilities on businesses 168–9
- media criticism 177
- overview 167–9
- political reasons for enacting 176
- provision of legal framework 173
packaging waste
- attitudinal change towards 172–3
- and BMU 171, 174
- cost allocation structure 172
- deposit-refund duty for one-way drinks packaging 175, 177, 178, 179
- developments in recycling business 172
- increasing volume 166, 167
- privatization of services for collecting and sorting 171–2, 178
- relation to DSD system 166–7, 169
- responsibility for collecting sales packaging 174–5, 177
- successful introduction of policy 177
- Töpfer enacting legislation 176
- worsening problem 170, 176
Philippines, oil price deregulation 156
Pigou, A.C. 5–6, 229, 265, 274
Pigouian theory 6–7, 9, 11, 12–13, 14, 20, 187–8, 189, 192, 205, 229, 265, 274, 275
drivers of
  vs. enabling factors 148–50
  EU and international 158–9
fossil fuel 160
further research 160
as integral part of transformation
  153–4
invisible reform 156
macroeconomic effects and
  transmission channels
  230–233
policy implications 240
reasons for duty on petroleum
  products 229–30
resistance to subsidies 161
shifts in political alliances 156–7
simulations hypotheses and results
  233–9
study conclusions
  European Union and beyond
  161–2
  Italy 239–40
  in three countries 150–153
timing and design 160, 161–2
Suk, S. 290, 292
Sweden
carbon tax introduction 230
energy taxes 60
linking tax burden to subsidy reform
  155
Swiss carbon tax 6
System of Environmental-Economic
  Accounting (SEEA) 188–9, 190,
  192, 197
tax burden per ton 218, 223, 225
tax exemptions
dealing with social justice 276
environmental 61–4
phase-out of carbon 151
tax-fee distinction 8–9
legal implications of 15–17
tax havens 98
tax law 98, 99–100, 101
  see also ratio legis of transfer pricing
  rules
tax relief
  for energy-intensive industries 211
  for low-income households 211–12
Telstra v. Hornsby 45
TFEU (Treaty on the Functioning of
  the European Union) 56, 59, 60,
  61–2, 63, 64, 66, 67
Thanapapillai, D.J. 25, 26, 32
Töpfer, K. 170, 173–7, 179
trade rules 69–71, 78
transparency 148, 150
transfer pricing rules 98–9
environment
  and arm’s length principle 103–4,
  107
  and formulary apportionment
  104–5
from environmental perspective 101
‘greening’ of 105–6, 107
ratio legis of 101–2, 107
benefit principle approach 102–3
equal capacity to earn income
  approach 102
true allocation of income
  approach 102
transport tax 55, 154, 188, 190, 192
true allocation of income approach
  102, 103, 107
UN Conference on Environment and
  Development 41, 159
UNFCCC (United Nations
  Framework Convention on
  Climate Change) 83, 92, 93
United Kingdom
aggregates levy 193
Biodiversity Action Plan 46
climate change levy 192, 193, 196,
  202–3
environmental taxes 190, 192–5,
  196
landfill tax 193, 194–5, 196, 246
United States
carbon pollution fee proposal 17–18
Gasoline case 94
legislative measures 15–17
local waste taxes 247, 249
national emissions changes 89, 91
and rare earths 75, 76
severance tax 215
Shrimp case 95
  see also market-based climate
  policies
United States v. Munoz-Flores 16, 21
user charges 8, 11, 167, 169, 178, 179
waste see industrial waste taxation; packaging waste; plastic waste management in India

Waxman-Markey Bill 124, 273, 277

World Trade Organization (WTO) case for revisiting GATT Article XX 76–7

China rare earths dispute 70–71, 74–6, 77, 78

China raw materials dispute 71–4, 75, 78

compatibility with 93–5, 96, 203

environmental protection policy and trade rules

competition between 69–70, 78

intersection of 70–71

export restraints 71–4

Panel and Appellate Body (AB) 69, 72, 73, 76, 77

restrictions 70, 71

Xiaoping, D. 75

Xinjiang resource tax reform

effects of

on local fiscal base 218–20, 221

on total resource extraction 217–18

issues with 220, 222–3

nature of resources 215

objectives 216

results of 223–4

substance of 216–17