Index

Behavioural strategies to support climate change resilience 79–95
behavioural economics, and 84
community-based social marketing 86–9
commitment, seeking 87
incentives 89
prompts 87–8
social norms 88–9
toolkit 86–7
underlying philosophy 86
complementary instruments 85
complementary mechanisms within regulatory strategy 84–5
environmental taxation instruments 80–85
factual interventions 83
first best instruments 79
instrument choice 83–5
‘instrument choice’ debate 91
instrumental myopia 83
micro-level 90
political economy 80–82
Henry Review, and 81–2
Schroeder on 82
self-interest 82
Portland, Oregon, community strategy 89–90
non-market 79
studies on instrument choice 84
Border tax adjustments 198–215
changes in GDP compared with case of no reduction 212
changes in market shares of imported steel products 213
changes in output levels compared with 2005 levels 211
CGE analysis 198–215
emissions trading scheme in Japan 199
Japan 198–215
price of emission permit 213
share of countries importing from in 2008 201
simulation results 210–13
simulation scenarios 208–10
structure of household consumption and investment 209
top global steel-producing companies in 2005 and 2008 202
Cap and trade system 35–44
action, necessity for 36–40
carbon tax compared 35–44
criteria 38
environmental policy, and 41
interactions between cap-and-trade system and other policy instruments 9–15
impacts on CO₂ emissions 10–11
impacts on economic efficiency 13
impacts on energy security 12
impacts on future caps in medium to long term 13–14
impacts on other types of emissions 13
IPCC, and 36
Kyoto Protocol, and 36–7
premise of 37
regulation by market 37
scientific data, and 36
sub-par results 38
time to establish 38
Carbon-related taxation in OECD countries 3–18
carbon-related taxation of motor vehicles 6–7
carbon taxes 5–6
one-off motor vehicle taxes 7
Environmental taxation and climate change

recurrent motor vehicle taxes 7–9
tax per tonne CO$_2$ emitted over vehicle’s lifetime 9
tax per vehicle as function of CO$_2$ emissions 7
tax per year as function of vehicles’ CO$_2$ emissions 8
tax rates per tonne CO$_2$ 6
taxes on petrol and diesel 3–5

Carbon tax
cap and trade system compared see Cap and trade system effectiveness 39
effectiveness of energy research, and 42
environmental policy, and 41
fuel-efficient automobiles 40
gasoline prices 40–41
implementation 39
participation, and 39
potential for stimulation of economy 39–40
tax incentives for United States 40–42

Clean Development Mechanism (CDM) 183–97
buildings in China 183
built environment, and 183–97
choice of baselines, and 192
complexities of building sector 189
countries with limited experience 192–3
effect 189
energy savings in built environment, and 184
expanding 191–3
build environment, and 193–4
energy saving targets for end-users 194
lack of available data 193
limitations 188–9
marginal reforms to 190
recommendations to reduce energy consumption in built environment of developing countries 194–7
Copenhagen Accord 2009 195
international climate change negotiations, and 194
NAMAs, and 195

reformed, role within comprehensive regulatory mix 190–94
SNLT, and 191–2
taxation and theoretical approaches to reducing energy consumption in building sector 184–7
barriers to energy savings 185
complexity of building sector 185–7
general recommendations 187
market changes 186–7

WBCSD report 186–7
Coal mining 129–43
Appalachians 132
carbon 129–30
peat 130
coal production 130–31
mountaintop removal 131, 132
seams 130–31
underground mining 131
federal laws 134–5
higher coal prices, and 140
Internal Revenue Code, and 139
laws do not prevent environmental degradation 135–7
approximate original contour 135–6
complaints 137
contractors 136
grassroots groups, rights of 137
legal gamesmanship 137
private citizens, rights of 136
segmentation 136
shell corporations 136
SMCRA 135–7
laws to protect environment 134–5
lost carbon sink tax 139–40
methods 129
negative environmental impact 140–41
neglected environmental threat 129–43
plants and animals, effects on 132–3
reclamation does not restore the environment 137–8
non-native species, use of 137–8
SMCRA, and 137
waterways 138
Index

recommendations 139–40
shifting cost of reclamation 139
SMCRA 134–5
sulfide materials, and 131
tax incentives for environmental degradation 138–9
BLDTF 139
tax breaks 139–40
waterways, effects on 131–2
West Virginia 132
Computable general equilibrium (CGE) 198–215
analysis of border tax adjustments 198–215
features of model 204–205
flow of production factors and products 204
general description of models 203–204
Japan 198–215
production process of steel products in model 206
production structure of industries 208
production structures of chemical products, petroleum products and EAF crude steel 208
structure of model 205–208
Danish packaging tax 216–29
alternative policy implications 227
concept 219–21
data 219–21
effectiveness 216–29
EUROPEN (2000) report 216
literature review 217–19
model 219–21
preliminary tests 221–3
result explanation 225–6
running models 223–5
trade gravitational regression models 227
Denmark
packaging tax see Danish packaging tax
Environmental fiscal reform
definition 20
Environmental tax reforms 19–34
aggregate impacts on GDP and employment 23
change in household income by quintile 28
COMETR 20–22
definition 20
EEA Project 26–9
economic results 23–4
effect on GDP 21
effect on GHG emissions 22
effects on tax-to-GDP ratios of selected EU member states 25
employment, and 26–7
equity implications, and 27–9
implications 19–34
innovation, and 26–7
key findings of recent projects in assessing 20–30
PETRE project 22–3
potential in current policy debate 30–32
public policy package, and 19
revenue recycling 24–6
revenue stability 24–6
UK Green Fiscal Commission 29–30
Environmental taxation 63–78
available measures 64–8
carbon taxes 65
command-control regulatory measures 66–7
current approaches 69–73
design issues 75
double-dividend 73
economic instruments 64–6
effluent charges 65–6
employment, and 73
French review 73
German review 73
negative paradigm 76
negotiated agreements 68
‘optimum’ standard 67
polluter-pays-principle 69–70
public voluntary programs 68
reform 72–3
regulations 66–7
comparative costs 66
punitive nature of 67
revenue-neutral 72

Larry Kreiser, Julsuchada Sirisom, Hope Ashiabor and Janet E. Milne - 9780857937872
Downloaded from Elgar Online at 06/14/2019 10:52:54AM via free access
Environmental taxation and climate change

risk, and 74–5
special charges 65
standards 66–7
sustainability drivers to corporate
decision-making 74–5
tax earmarking 65

technological development 70–72
dynamics 71
innovation practices 70
R&D 71
technology lock-in 71
tradeable permits 64
unilateral commitments 67–8
voluntary measures 67–8

Forest carbon 150–65
carbon sink forestry initiatives,
challenges for 160–61
comparing Australian and New
Zealand approaches 159–60
forest incentives in Australia
153–6
ATO, and 154
CPRS 153
federal level: carbon sink
establishment
deductions 153–4
forestry incentives at state
level 155–6
NSW GGAS 155–6
proposals under CPRS 154–5
forestry incentives in New
Zealand 156–9
Afforestation Grant
Scheme 158–9
NZ ETS 157
Permanent Forest Sink
Initiative 157–8
forestry, role of 151–3
forests as carbon risks 151
global markets 151–2
global offset market 152
market mechanisms for
forestry 152–3
market mechanisms, use to
bolster 150–65
REDD mechanism 150

Gasoline demand reaction 169–82
correlation between gaspca and
gdpvpc 174
correlation between gaspca and
t 175
correlation between gaspca and
tpr 175
data processing 181–2
databases 172
estimation 172–5, 176–80
international panel data
analysis 169–82
result of log-linear
specification 178–9
results of linear specification
179–80
signaling effect of tax 169
specification of tax effect 170–72
tax elasticity, and 169–70
tax rates on gasoline 173
test of endogeneity 176–7
Great Lakes 144–9
collaboration strategy 145
collaborative process 145–6
effectiveness of restoration
programs 147–8
funding 146–7
GLRC 146
improvement in water
quality 147–8
Protection Fund 146–7
restoration programs 144–9
US legislation 144–5
water levels 144
water quality 144–9

Innovative taxation strategies 47–62
cap-and-trade regimes 50–51
design 50
principles 50
shortcomings 51
carbon heavens 47
carbon leakage 47
categories of environmental
taxes 48
challenges during present interim
period 57–9
problem of compatibility with
WTO law 58–9
Index

unilateral border tax regime 57–8
development of new strategies 51–9
environmental tax, definition 48
extension of OECD Model Tax Convention 52–4
carbon tax shaped as income tax 52–3
extension to non-OECD countries 53–4
non-discrimination principle 53
international feasibility 59–60
national carbon taxes 49–50
design 49
principles 49
shortcomings 49–50
newly developed international taxation regimes 55–7
agreement on preferred pricing mechanism 55
carbon sequestration credit system 55–6
carbon tax as consumption tax combined with system of financial transfers 56–7
hybrid system 56
social costs, and 47–8
supporting climate change resilience 47–62
traditional tax instruments 48–51
national carbon taxes 49–50
Italy
land management and local taxation see Land management and local taxation in Italy
Japan
border tax adjustments, and 198–215
changes in volume of steel production, exports and imports 200
competitive concerns of carbon-intensive sectors 199–208
international competitiveness concerns of iron and steel sectors 214
share of countries exporting to in 2008 201
Land management and local taxation in Italy 111–25
construction charges 113–15
land market and public intervention 112–13
marginal social cost 112
urban planning, and 113
zoning 112–13
lessening problems of territorial competition 122–3
link between urban planning and local budget revenues 122
pigouvian tax 123
policy overlapping 111
proposed repeal of construction charge 122
urban taxes and territory agreement 115–21
aim of construction charge 115
capital expenditure coverage through construction charges 117
construction charges 115, 116
construction charges, ICI and building cycle 118–19
metropolitan areas 119
municipal debt 120
preservation of agricultural lands 121
soil consumption 120–21
tax base sharing 119–20
territorial competition 119–20
urbanization of land 121
Taxing land rents 99–110
centrifugal forces of sprawl development 100
challenges of public administration 100
efficacy of public programs 99
‘frozen capital’ 106
Gilbert Tucker on 107
Henry George Theorem 107
investment and development, and 102
land rent in a modern economy 106–108
<table>
<thead>
<tr>
<th>Term</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>land values, tax on</td>
<td>101–102</td>
</tr>
<tr>
<td>natural resource rents, taxation of</td>
<td>103–106</td>
</tr>
<tr>
<td>capitalized transportation costs</td>
<td>103</td>
</tr>
<tr>
<td>enclosure movement</td>
<td>104–105</td>
</tr>
<tr>
<td>flow of ground rents through locations</td>
<td>104</td>
</tr>
<tr>
<td>forms of rent</td>
<td>105</td>
</tr>
<tr>
<td>‘great land goals’</td>
<td>104–105</td>
</tr>
<tr>
<td>infrastructure costs</td>
<td>104</td>
</tr>
<tr>
<td>site rent</td>
<td>103</td>
</tr>
<tr>
<td>unearned increment</td>
<td>104</td>
</tr>
<tr>
<td>usufruct ownership</td>
<td>105</td>
</tr>
<tr>
<td>Von Thunen on</td>
<td>103</td>
</tr>
<tr>
<td>other elements of nature, and</td>
<td>107–108</td>
</tr>
<tr>
<td>percentage of GDP</td>
<td>106</td>
</tr>
<tr>
<td>poorly conceived public policies</td>
<td>100–101</td>
</tr>
<tr>
<td>sound tax theory, and</td>
<td>102</td>
</tr>
<tr>
<td>sustainability, for</td>
<td>99–110</td>
</tr>
<tr>
<td>tax principles</td>
<td>102</td>
</tr>
<tr>
<td>traffic congestion</td>
<td>100</td>
</tr>
<tr>
<td>trivialization of land as factor of</td>
<td>106</td>
</tr>
<tr>
<td>production</td>
<td></td>
</tr>
<tr>
<td>UGBs</td>
<td>100–101</td>
</tr>
<tr>
<td>urban livability, for</td>
<td>99–110</td>
</tr>
</tbody>
</table>