Index

Australia
minerals resource rent tax (MRRT) 212–13, 228–32
average tax rate over life of project 229–30
constitutional problems with 230–31
environmental objectives, and 232–3
features 212
Government Fact Sheet 229
mining-rich states, and 213
Policy Transition Group 213
royalties 212–13, 231–2
RSPT compared 229
section 118 of Constitution 231
worked example 229–30
proposals to tax coal super profits 223–35
current system 223–5
Henry Review 226
MRRT 228–32
proposal for new resource taxation scheme 226–7
royalties, problem with 225–6
RSPT 227–8
state royalty regimes 224
proposed resource rent taxation regime 201–22
acceptance building 218
Brown tax 208, 214–15
Brundtland Report 201
cap on royalty rates 215–16
context 203
distortion of investment decisions 218–19
’Dutch disease’, and 203
existing regime 204–5
international resource rent taxation regimes on mining and petroleum 206–7
jurisdictional competence of states and territories 214
legal and constitutional minefield 214–15
losses on resource projects 216
main issues identified 208–9
mineral tax and royalties as share of mineral profits 205
mining boom, and 203
OECD reaction 214
political economy 201–22
reimbursements 215, 216
resource rent taxes generally 205–8
royalty arrangements 204–5
RSPT 208, 209–11
sectional interests, and 217
sovereign wealth funds, and 218
stewardship of commons for community as a whole 217
two-speed economy, and 202
resource super profits tax 208, 209–11
application 209
attitude of mining companies 211–12
double taxation, avoidance of 210
purposes of revenues 210
rate 210
reduction in corporate taxes, and 219
retrospective application 210–11
road transport emissions see Road transport emissions in Australia
Australian tax reform for sustainable transportation 183–97
consumption of petroleum products in Australia 2008–09 186
dependence on imported liquid fuel 186
energy consumption in Australia 2007–08 184–5
liquid fuel problem 183–7
luxury energy tax 195
oil reserves reported from selected agencies 187
road fuel consumption in Australia by type of vehicle 2006–07 185
specifications of Holden family car 1948–2008 189–90
taxation policy 191–3
change 193–5
FBT 192
Henry Review 192–3
influence on personal transportation choices 191
LCT 192
Netherlands 194
Oregon 194
tax revenues from transportation taxes 191
UK, and 193
transport policy and growth of private vehicles 187–90

Belgium
composition of tax revenues 42, 43
environmentally related taxes 35, 37
fuel tax rates 44–7
history 44
international comparison 46–7
transport fuel taxes 1971–2010 44–5
gasoline and diesel tax rates evolution 45
general comparative issues 36
history of environmentally related taxation 39–42
maximum fuel price 49, 50
revenues from environmentally related taxes as percentage of GDP 39
responsiveness to international oil price 51
revenue from environmental taxation 52

revenues from environmentally related taxes as percentage of local taxation 38

Carbon tax
nature of 103
Carbon tax policy progress in north-east Asia 103–18
comparative analysis of proposals of three target countries 115–16
current policies in three target countries 104–6
latest climate policies in three target countries 105–6
state of carbon emissions in three target countries 104–5

China
carbon emissions 104
carbon tax policy proposals 112–13
CGE model simulating carbon tax policy 107
climate policy 105
composition of tax revenues 42, 43
energy tax policy see Energy tax policy in China
environmental tax reform 49
environmentally related taxes 37–9
existing energy-related taxes 11
fuel tax rates 44–7
history 44
international comparison 46–7
reform since 2009 45–6
gasoline and diesel tax rates evolution 45
general comparative issues 36
hierarchy layers of government administration 48
history of environmentally related taxation 39–42
institutional background for fee-to-tax and tax rate selling 47–9
policy design of environmental tax see Policy design of environmental tax in China
pollution levy 40

Belgium
carbon emissions 104
carbon tax policy proposals 112–13
CGE model simulating carbon tax policy 107
climate policy 105
composition of tax revenues 42, 43
energy tax policy see Energy tax policy in China
environmental tax reform 49
environmentally related taxes 37–9
existing energy-related taxes 11
fuel tax rates 44–7
history 44
international comparison 46–7
reform since 2009 45–6
gasoline and diesel tax rates evolution 45
general comparative issues 36
hierarchy layers of government administration 48
history of environmentally related taxation 39–42
institutional background for fee-to-tax and tax rate selling 47–9
policy design of environmental tax see Policy design of environmental tax in China
pollution levy 40
Index

progress of carbon tax 111–13
trends in GHG emissions 87–8
Comparison of Chinese and European environmentally related taxes 35–54
general comparative elements 36–7
Emissions trading scheme
nature of 103
Energy tax policy in China 3–17
adjustment of vehicle tax 6–7
auto industry 6–7
benefits for energy service companies 10–11
certified emission reductions 11–12
circular economy promotions law 4–5
encouragement of investment in energy-efficient products 11
Energy Conservation Law 5
fuels tax 7–8
green buildings 8–12
Kyoto Protocol 11–12
limiting rise of private automobile ownership 8
moving transportation sector forward 5–6
new energy technology ventures preferential tax rates 9–10
policies designed to promote green investment 3–5
reduced tax rates for energy-related enterprises 10
Renewable Energies Law 4
renewable energy 8–12
tax holidays for energy-related enterprises 10
transportation sector 5–8
wind energy sector, tax measures targeted at 12–13
European Union
environmentally related taxes 37–9
history of environmentally related taxation 39–42
Fiscal intervention measures in China 55–65
assessment 55–65


potentials of subsidy reform to reduce GHG emissions 95–6
potential sources of emissions reductions 90–94

reasons why EFR not more widely implemented 97
related benefits 89
serious, binding commitments, need for 100


see also McKinsey's Global Greenhouse Gas Abatement Cost Curve
market distortions as barrier to change 94
OECD, and 89–90
plastic bag waste management 119–29
see also Plastic bag waste management in Ho Chi Minh City
potential of subsidy reform to reduce GHG emissions 95–6
potential sources of emissions reductions 90–94
reasons why EFR not more widely implemented 97
related benefits 89
serious, binding commitments, need for 100
Environmental taxation in China and Asia-Pacific

macroeconomic policy analysis 55–65
conceptual framework 56–7
empirical illustration 57–62
internalization 55
magnitude of extra taxes 59
standard framework versus sustainable framework versus actual income 59
standard framework versus sustainable framework with 2% extra taxes reinvested in KN 60
standard framework versus sustainable framework with 5% extra taxes reinvested in KN 61

GHG emissions trends in 87–8

Hong Kong
current green tax measures 152–5
environmental problems 150
excise duties on motor fuels 153
first registration tax 152
green tax measures 150–63
green tax measures concerning energy use 154–5
recommendations to enhance green tax measures 155–61
building acceptance of green tax measures 160–61
CO₂ tax 156–7
enhance efficiency of public transportation system 159
extending excise duties to fossil fuels 155
green taxes levied on motor vehicles 157
obstacles for imposing green tax measures 159–60
political and public acceptance 159
promote use of electric vehicles 159
provide incentives for development of renewable energy sources 158
recommendations for revenue use 158
taxes levied on motor fuels 157–8
source of air pollutants 161
tax deductions for capital expenditure on environment-friendly vehicles 154
tax incentives for electric cars 154
tax incentives for environment-friendly commercial vehicles 154
tax incentives for environment-friendly petrol private cars 153
taxation system 151
vehicle licence fee 152

Japan
carbon tax proposals of MOE 109–11
existing energy-related taxes 107–8
FY 2010 carbon tax proposal and existing taxes of EU countries 110
GHG emissions 105
impact of carbon and energy taxes 106–7
progress of carbon tax policy 107–11
resistance from industrial lobby groups 116

Kyoto Protocol 11–12
certified emission reductions 11–12

Mckinsey’s Global Greenhouse Gas Abatement Cost Curve 90–94
behavioural change 93–4
beyond business-as-usual 92
energy efficiency 91–2
low-carbon energy supply 92–3
terrestrial carbon-forestry and agriculture 93

OECD
green taxes 151
Policy design of environmental tax in China 18–34
adjustment of tax categories 28
carbon and fuel environmental tax system 25
consumption tax 26
design of environmental tax options 19–31
direct pollution tax 21–3
taxation 25
environmental tax and charge 28–9
environmental tax expenditure policy 29–31
adjusting means and forms of preferential tax policy 30
clarifying policy coverage 30
comprehensive preferential policies 30–31
preferential degree 30
environmental tax of water resource 23–4
framework of environmental tax policy 19
general environmental tax 20–21
implementation strategy 31–3
coal consumption tax 32
collection and management of environmental tax 32–3
comprehensive review of environmental tax and charges 31
eliminating subsidies harmful to environmental protection 31
further study on environmental tax 33
independent environmental tax plan 32
integrated environmental tax plan 31–2
piloting program ahead 32
polluting products tax 32
public awareness of environmental tax 33
step-by-step approach 31
strengthening fundamental work of environmental tax 33
taking water resource into resource tax 32
independent environmental tax plan 20–25
integrated environmental tax plan 26
nitrogen oxides tax system 23
polluting products tax 24–5
resource tax 27
sulfur dioxide tax system 22–3
Plastic bag waste management in Ho Chi Minh City 119–29
application of environmental taxation 120
average number of bags released in one observation hour by one cashier 124
deserve-to-pay sum as environmental fee per year for each supermarket 127
environmental fee estimated for each type of plastic bags 126
estimation of total number of bags given out per year 125
life cycle analysis of plastic bags 126
methodology 121–2
nature of plastic waste 119
number of bags given out by hour 123–4
statistics 120–21
survey results 122–7
Republic of Korea
discussions on carbon tax proposals 113–15
energy-related taxes 113
impacts of carbon tax on commodity prices 107
Low Carbon, Green Growth 106
progress of carbon tax policy 113–15
Road transport emissions in Australia 133–49
ACEA 138
comparison of Australia and European targets 140–41
consideration of mandatory emission standards 141–3
consumer behavioural anomalies 135–6
CPRS 133, 134–5
EU mandatory targets, and 139
European Commission proposal, and 138–9
European Council, and 139
European Parliament, and 139
fuel price changes may be inelastic 135
government’s role in supporting mandatory fuel emission targets 143–5
international harmonization of automobile emission standards 145
international targets 138–9
JAMA 138
KAMA 138
mandating emission targets 133–49
market mechanisms, preference for 134–5
projected national average carbon emissions 136
regulating emission standards 136
technological development of low emission vehicles 134
voluntary emission standards 137–8
South African vehicle emissions tax 164–82
comparative study 167–74
ad valorem customs and excise duties 168–9
ownership taxes 171–2
purchase taxes 167
registration fees 167–8
transport fuel levies 173
VAT 167
vehicle emissions tax 169
vehicle purchase taxes 170
vehicle usage taxes 174
consumer attitudes 165
deductibility in terms of Income Tax Act 178, 179
design 165
fee rebate policy 177
increasing fuel levies 178
investing in fuel technologies 177
legislation 165
need for study 165–6
objective of study 165–6
possible weaknesses 174–6
current status of motor industry 176
focus on consumers 175
focus on new vehicles 175
no distinction between petrol and diesel driven vehicles 176
possible alternatives 176–8
prospects 165
prospects of achieving purpose 179
purpose 164
reduction of CO₂ emissions 164–82
value of research 166

Wastewater environmental tax in China 66–83
advantages 66
characteristics of pollution discharge fee 69
collection object 74
compared with fee, tax has advantages 82
comparison between wastewater pollutant discharge fee and environmental tax 71–2
comparison between wastewater tax amount and discharge fee collection amount 76–8
instruments implemented by different governmental institutions 72
policies using revenue collected in different ways 72
public has different understanding of two policies 71
two policies have different roles 71
design 73–8
detailed design 74
difficulties in collection of discharge fee 69–70
effectiveness 73
fairness 73–4
impact of water pollution control policy change on wastewater pollutant discharge fee 68–9
Index

industrial pollution intensity factors 75
issues affecting reform 79
institutional obstacles 79–80
policy coordination 80–81
setting off preferential tax policy 81
technical obstacles 80
issues in converting discharge fee to wastewater environmental tax 82–3
low collection rate of wastewater pollutant discharge fee 72–3
operability 74
pollutant discharge fee system 67

Polluters Pays Principle 67
principles 73
revenue collected from water pollution discharge fee 68
shortcomings of pollution discharge fee collection system 69–70
tax base and calculation 74
tax preference 76
tax rate 76
taxpayer definition 74
trends of wastewater pollutant discharge fee policy 67–8
wastewater pollutant discharge fee policy 67–70