Index

acceptability thresholds 149–51
addiction
  behavioral economics 158
  behavioral explanations 161–2
  consumption, potentially addictive goods 163–5
  cues 162
  definition of 159–60
  description of 158
  neoclassical approach 160–61
  non-exponential discounting 161–2
  normative interpretation 162–3
  perceptions of 159
  presentism 162
  rational model 160–61
  reasons for 159
addiction hopping 159
Administrative Procedure Act 78
age and life expectancy 110–11
Ahlfeldt, G.M. 175
alternative state 141
American Society of Addiction Medicine (ASAM) 159
Anas, A. 173
Anderson, J.E. 176
Araya, C. 175
asymmetric information 82

Baker, K. 233
baseline
  before vs. after 43–4
  in case study 228–9
  definition of 42
  modeling 46–8
  recommendations for 53–4
  retrospective vs. prospective 44–6
  with vs. without action 43–4
behavioral economics 158
benefit/cost ratio 5, 196
benefit-cost rule (BCR) 71–2
benefit transfer 108–9
bias 203, 221
Blomquist, G. 112
Bosker, M. 175, 176
Bröcker, J. 173
brute force simulation 234–5
budget constraints 4
Bush, George W. 78

Cameron, T.A. 112
capital budgeting 212
capital-market sourcing 35
Carson, R.T. 74
case studies, classroom
  components 224
  individual 229
  nuances of benefit-cost analysis 225–9
  regulatory impact analysis 224
  setting 223–4
  student's absorption, technical materials 224–5
Centre for Industrial studies (CSIL) 87
Chang, H. 173
class exercise 80, 206
  brute force simulation 234–5
  discounting 236
  equilibrium triangles 19–23
  project choice 6–10
  software-enabled simulation using Excel add-ins 235–6
classroom *see* case studies, classroom
Clean Air Act (CAA) 45–6
Clean Air Act Amendments (CAAA) 45–6
Clean Air Interstate Rule (CAIR) 49–50
Clean Air Mercury Rule (CAMR) 49–50
Clean Power Plan (CPP) 50–51
Clean Water Act (CWA) 43–4
Clinton, Bill 78

Scott Farrow - 9781786435323
Downloaded from Elgar Online at 08/11/2020 10:55:25PM
via free access

Coase, R.H. 81
Coase theorem 81
co-benefits, use of 227–8
Cobb-Douglas utility function 77
common property resources 81
competitive labor market 125–7
Congressional Budget Office (CBO) 41, 47
Congressional Research Service (CRS) 64–5
consumer equilibrium model 12
contentious law 62–3
contingent analysis 63–4
core principles
  alternative state 141
  criticisms 141–2
  status quo state 140–41
Corso, P.S. 112
cost(s)
  clarification of 201
  of hiring workers 127–30
  of laying off workers 125–7
  operating 93
  of project in RDI 185
  social 128–30
cost-effectiveness analysis (CEA)
  benefit-cost analysis vs. 140
  marginal analysis 120–22
cost-utility analysis (CUA) 145–6
cost-utility ratios (CURs) 149
criminal activity 60
criminal preferences 62
critical mass 122
cues 162

deadweight loss 35
deadweight loss triangle 35
decision rules
  budget constraint 4
  marginal and non-marginal concepts 3–5
  non-marginal measurements 5–6
  policy decision types 6–12
DELTA base model 170–71
demand 30–31, 70, 72, 182
Department of Energy (DOE) 227
Department of Homeland Security 229
DeShazo, J.R. 112
discount cash flow method 93
discounting simulation 236
displacement 126
distribution effects 169
distributional accounting
  in benefit-cost analysis 214–17
  framework for 217–21
  objectives of 208
  public evaluation context 208–14
distributional weights analysis
  description of 28–30
  pitfalls in 32–3
Dréze, J. 100

economic good 60
economic module 170
education *see* ingredients method
Ellickson, R. 63
employment, government projects 124
envelope theorem 69–70, 74
Europe 87
European Commission Guide 93
European Investment and Structural Funds (ESI Funds) 86
European Regional Policy 86
European Union 171
ex ante approach 138
Excel add-ins, software-enabled simulation 235–6
exercise *see* class exercise, simulation
expected value 232
exponential discounting 161
ex post approach 138
externalities 33–5, 81

Farrow, S. 69
Feldman, O. 170
financial discount rate 93
financial sustainability analysis 217
flat of the curve 122
Forslid, R. 175
Franklin, Benjamin 209

general equilibrium
  large project 70
  supply and demand 19–20
  taxation with three goods 21–3
  triangle 17–21
generalized triangle 23–5

Scott Farrow - 9781786435323
Downloaded from Elgar Online at 08/11/2020 10:55:25PM
via free access

generalized triangle analysis
  existence of other tax 25–6
  non-tax distortions 26–8
government standards 64–6
Grosse, S.D. 112

Hammitt, J.K. 109, 111, 112
health policy
  CEA evolution 143–6
  evaluation 142–3
  interventions 142–3
  WTP measuring for 151–3
health state specific utility (HSSU) 146–8
heterogeneity 163–5
Hicksian concepts 70
Hicksian demand 71
Hicksian expenditure function 76
hiring workers 127–30
Hoehn, J.P. 74
Hotelling's lemma 70
human capital formation, social value of 192–4

illegal goods or activities 61
imperfect competition (monopoly) 175
incremental cost-effectiveness ratio (ICER) 149, 151
individual case studies 229
individual risk concept 137
information vs. uncertainty 135–6
infrastructures *see* research and development infrastructures (RDI)
ingredients method
  advantages of 204–5
  case study 206
  cost estimates 201–2
  identifying inputs 202–3
  implementing social intervention 202–3
  pricing out inputs 203
  spreadsheet 204
initial equilibrium price 70
internal rate of return (ERR) 196
internalities 227
International Civil Aviation Organization (ICAO) 52

Johansson, P.-O. 74

Kaldor-Hicks principle 5
Kaldor-Hicks Tableaus (KHTs) 208, 214–20
Kniesner, T.J. 112
Kriström, B. 74

labor market
  hiring workers, cost of 127–30
  laying off workers, cost of 125–7
Land Use Transport Integration (LUTI) models 174–6
large project 70–71
laying off workers 125–7
league tables 149–51
Le Chatelier's principle 73
log-linear utility function 77

MacRae, D. 59
marginal analysis 3–4
  cost-effectiveness 120–22
  critical mass 122
  flat of the curve 122
  importance of 118–20
  motivation 114–16
  reasons for no value 116–18
  three cases 120
marginal benefits (MB) 4
marginal costs (MC) 4
marginal utility (MU) 12
market efficiency
  allocating resources 80–82
  default presumption 79
market failure
  asymmetric information 82
  common property resources 81
  compelling public need 82
  externalities 81
  government solutions 83
  market power 81–2
  public goods 81
  regulatory development 79–80
  US regulatory practices 78–9
market power 81–2
Marshallian concepts 70
Marshallian demand curve 71
Marshallian demand function 71
Martínez, F. 175
Mercenier, J. 173
Milan Summer School 87–8
Milgrom, P. 73

Scott Farrow - 9781786435323
Downloaded from Elgar Online at 08/11/2020 10:55:25PM
via free access

Mine Safety and Health Administration (MSHA) 226
modeling baseline 46–8
monetization 209
Monte Carlo simulation 182, 196, 220, 233
motivation 114–16
Munger, Michael 80, 81

Nash, C. 58, 59
National Ambient Air Quality Standards (NAAQS) 50
net benefits 5
net present value (ENPV) 95, 196, 232
net social benefits 234–5
neuroplasticity 160
non-exponential discounting 161–2
non-marginal measurements 5–6
non-marginal principles
  Kaldor-Hicks principle 5
  Pareto improvement 4–5
non-tax distortions 26–8
norms 63

Obama, Barack 78
Office of Information and Regulatory Affairs (OIRA) 79, 229
Office of Management and Budget (OMB) 64–5
  finalized regulation 49–50
  non-final regulations and related complications 50–51
  regulatory actions 51–3
operating costs 93
optimal budget 8
Organisation for Economic Co-operation and Development (OECD) 108–9
Osuna, E. 61

Pareto improvement 4–5, 215
partial vs. general equilibrium evaluation
  changing parameters 71–2
  numerical illustration 72–4
  overview of 69
path dependency 71
Pearce, D. 58
policy decisions
  accepting/rejecting single project 7
  optimal budget 8
  overview of 6–7
  scale example with limited information 9–10
  selecting ideal scale of project 9
  selecting one from several projects 7–8
  selecting one/more projects to fund from fixed budget 8–9
  selecting optimal scale and allocation 10–12
potentially addictive goods 163–5
Powell, S. 233
presentism 162
present value 35, 70
primary research method 107–8
prospective analysis 44–6
public goods 81
Puga, D. 175, 176

quasi-hyperbolic discounting 161
Quinet, E. 173

Raj, A. 173
Ramsey rule 24
Randall, A. 74
rate of return 5
rational addiction model 160–61
Redding, S. 176
Regional Economy Land Use and Transportation (RELU-TRAN) model 173, 175
regulatory development 79–80
regulatory guidance 83
regulatory impact analysis (RIA) 41, 212–13, 224
Renewable Fuel Standard (RFS) program 42
research and development infrastructures (RDI)
  benefit-cost analysis model for 181–3
  evaluation of 181
  quantitative case study approach
    cost of project 185
    development and commercialisation, new/improved products 188–9
    employment effect 185
    human capital formation, social value of 192–4

Scott Farrow - 9781786435323
Downloaded from Elgar Online at 08/11/2020 10:55:25PM
via free access

production knowledge in the form of publications 190–92
project benefits 188
project objectives 183, 185
revenues of project 185, 188
social value of patents 189–90
socioeconomic performance 196
spin-offs 194
time horizon 185
typical benefits 183, 184
uses and advantages of 180–81
research synthesis 108–9
residual value 93
restrictive assumptions 169
retrospective analysis 44–6
risk
analysis vs. benefit-cost analysis 137–8
uncertainty vs. 133–4
risk assessment 96
risk aversion 134–5
Roberts, J. 73
Robinson, L.A. 109, 111
Rose, A. 69

safety factor 137
secondary markets 224
shadow price of government funds (SPGF) 35–7
short course
on analytical concepts 92–6
on context and cases 96–100
Milan Summer School 87–8
setting scene 88–91
Simmonds, D. 170
simulation
background of 233
brute force simulation 234–5
discounting 236
objectives 233
reasons for 232
software-enabled simulation using Excel add-ins 235–6
slope equality 12
small project 69–70
social cost 128–30
social cost of carbon (SCC) 210
social discount rate 93
software-enabled simulation, Excel add-ins 235–6
Spatial General Equilibrium models (SGEM) 174–6
stakeholder distributional analysis 30–32
standing in benefit-cost analysis
avoidance of stress 61
contentious law 62–3
contingent analysis 63–4
criminal activity 60
criminal preferences 62
definition of 58
envy and status 61
government standards 64–6
illegal goods or activities 61
law and 59–60
norms 63
unclear law 62–3
Stanley, J. 58
static vs. sequential benefit-cost analysis 136–7
statistics 233, 235
status quo state 140–41
Stern, N. 100
stress 61
supply 30–31, 70, 72, 182

taxes 21–3, 25–6
thief, criminal activity 62
time horizon 185
Trans-European Networks (TEN) 171, 172
transfers 109, 219
Transportation Infrastructure Needs Assessment (TINA) 171, 172
transportation models
description of 168–9
drawbacks 168–9
economic module 170
general structure 169–71
land use issues 174–5
output of 171–3
perfect/imperfect competition 175
size and complexity issues 175–6
static and dynamic models 173–4
transport module 170
transport module 170
Trump, Donald 79
type 1 uncertainty 134–5
type 2 uncertainty 135

Scott Farrow - 9781786435323
Downloaded from Elgar Online at 08/11/2020 10:55:25PM
via free access

uncertainty
  description of 133
  information vs. 135–6
  risk vs. 133–4
  type 1 134–5
  type 2 134–5
unclear law 62–3
unemployment 127–30
unimplemented rule 51
University of Milan 87
US Environmental Protection Agency (US EPA) 41, 43, 45–53, 108, 226, 227
US regulatory practices 78–9

value per statistical life (VSL)
  age and life expectancy 110–11
  benefit transfer 108–9
  conceptual framework 106–7
  description 105
  for income differences 109–10
  primary research method 107–8
  research synthesis 108–9
  terminology 107
value per statistical life year (VSLY) 111
Van Wincoop, E. 176
Venables, A.J. 176
Vickerman, R. 173
Viscusi, W.K. 112

wage, reservation 131
Wegener, M. 173
welfare economics, postulates of 17–18
Whittington, D. 59
willingness to accept payment (WTA) 60, 67, 212
willingness to pay (WTP) 60, 67, 71–2, 74, 212

Zerbe, R.O. 59, 67

Scott Farrow - 9781786435323
Downloaded from Elgar Online at 08/11/2020 10:55:25PM
via free access