Index

Aaron, H. 10, 100, 108
ability 166, 169, 171, 201
Acemoglu, D. 36
Agénor, P.R. 127
agent monotonicity 53
Aitchison, J.A. 137, 142, 160, 182, 188
Alesina, A. 20, 22, 52, 99, 101, 120, 174, 175, 198
Allen, R.G.D. 17
Amiel, Y. 137
Angelopoulos, K. 152
arithmetic mean human capital accumulation 151
arithmetic mean income/welfare weighted mean income 174, 180–181, 194
augmented utility function 92
Azzimonti, M. 52, 102

basic inequality 19
Bearse, P. 7, 13, 15, 38, 102
Benabou, R. 198
benchmark parameter values 61, 212–213
Bernasconi, M. 14
Beta coefficient 87–91
Blankenau, W.F. 151
Boldrin, M. 199
Borck, R. 6, 13, 15, 39, 50, 75, 79, 102
Borge, L.E. 54
Bowley, A. 17
Brent, R.J. 175
Brown, J.A.C. 137, 142, 160, 182, 188
budget constraint
government budget constraint model 203
individual 16, 92, 132, 149, 178, 202, 216
and optimal composition 134–136
business fluctuations 118
Calvo, G. 179
capital
depreciation 204
output 205–206
per unit of labour model 205–206
rental 204
tax 212–213, 216
capital accumulation 205–206
and labour output 210
and redistributive expenditure 205
capital accumulation model 205, 217
Capolupo, R. 151
Chen, B.L. 127
classical utilitarian welfare function 181
Cobb–Douglas functions 17, 39, 53, 54, 60, 81–82, 92, 93, 95, 98, 106, 109, 128, 131, 132, 149, 150, 151, 177, 178, 181, 204
composition of expenditure 15, 29–30, 128, 129
Conde-Ruiz, J.I. 100
consumption/investment expenditure in growth framework 127
Cooley, T.F. 199
Corneo, G. 174
Coughlin, P. 14
Cragg, M. 175
Creedy, J. 121, 137, 152, 176
culture
and expenditure 118, 174
INDEX

and tax policies 101, 174

democratic/non-democratic expenditure divisions 22–23, 24
direct utility function 18, 207
Dolmas, J. 14, 31
dynamic voting models 52

education
expenditure shares 23
income and fiscal spillover 147–148
investment 166, 167
per capita spending 151
as public good 147–171
as publicly funded private good 13, 147
and transfer payments 16, 38–44, 102, 147–171
variations in optimal expenditure shares 168
and wage rates 150–152
education spending 39, 41
effectiveness labour 152
efficiency parameter 168
efficiency units of labour 197
election probability model 33–34, 35
endogenous wage rate distribution 94–97
Eppele, D. 16
equally distributed equivalent income 27–28
equally distributed equivalent wage 138
expenditure composition 15, 29–30, 128, 129
and culture 118, 174
first-order conditions 154–159
optimal composition 29
optimal government 127–146
and proportional income tax 127
shares by country 23
and tax rate variation 63, 97, 101
expenditure divisions, democratic/non-democratic 22–23, 24
expenditure ratios by country 102
evidence 103–105
and inequality by country 104
and parameter values 113–117, 118
and tax rates by country 117–121
variation alternative preference parameters 215
alternative tax rate/share of capital 214
expenditure share and wage ratio 72, 73, 93
with endogenous wages 97
expenditure shares by country 23
and tax rates 117
variations 115, 116
Fernandez, R. 16
full income 150

Galasso, V. 64, 85, 100, 150, 199
GDP per capita growth 188–189
and inequality 198
GDP/tax revenue ratio 188
general direct utility function 16
general equilibrium model 195–218
Ghiglino, C. 179
Gini coefficient 71, 72
Gini index 188
Glaeser, E.L. 20, 22, 99, 101, 121, 174, 175
Glomm, G. 16, 151
government budget constraint see budget constraint
government expenditure alternative solutions 183
Government Finances Statistics Yearbook 69, 73
Government Financial Statistics 103
government spending constraint see budget constraint
Greenwood, J. 81
gross earnings 54, 83, 150
Grossmann, V. 102, 202
Grüner, H.P. 174, 223
Harbour, G. 102
Harms, P. 6, 79
Härpfer, M. 175, 176, 193
Hassler, J. 14, 52, 102, 109, 207
Haufler, A. 100
Haupt, A. 16
Helpman, E. 102
hierarchical adherence 53
Hindriks, J. 80
Hockley, G.C. 102
home production 77–97
homothetic utility functions 17
human capital accumulation 151
human capital production function 162
implicit welfare function 176
INDEX

income 27–28, 55, 56
income, equally distributed equivalent income 27–28
income distribution 27–28
and growth 198
income growth 184
income inequality
by country 3, 184
increase 184
and policy 6
see also inequality; inequality aversion
indifference curves 42, 78, 79, 130, 134, 156
indirect utility 56–57, 93, 95, 96, 131–133, 137, 150, 178, 207, 217
individual budget constraint see budget constraint
individual budget constraint model 16, 132
individual consumption 52–54
individual human capital accumulation 151
individual maximisation of utility 149–150
inequality
Atkinson measure of 160
and capital accumulation 198
and expenditure 14, 199
and GDP per capita 198
and government size 20
and growth 198
and pensions 199
and redistributive policy 198
and redistributive/total expenditure 210
see also income inequality
inequality aversion 186–187
and basic income choice 67
and budget share variation 171
by country 175–176, 189, 190, 191, 192, 193, 194
and equilibrium 66
and expenditure pattern 162–163
and government tax decisions 175 implicit 186–193
measurement 189–190
and median voters 140
optimal composition and variations 165
and optimal outcomes 141
and population growth levels 193
and social welfare function 142–143
transfer payment/government expenditure 174
transfer payment/tax rate 167
and transfers/public good expenditure 141, 143–144
initial wage variance 164
interest rates 113, 184, 188
data 188
investment in education 166, 167
investment effect 166
Irmen, A. 10
Koulovatianos, C. 212
Krusell, P. 15, 50, 52, 102
Kuehnel, J. 10
labour
effective labour 152
supply 52–54
tax 213, 216
labour input efficiency model 204
Lambert, P. 175, 176, 193
leaky bucket experiment 137
Lee, J. 127
leisure demand 54
lifetime budget constraint 109
lifetime direct utility function model 106
Lind, J.T. 6, 71, 79, 99, 114
Lindbeck, A. 14
linear preference system 17
linear tax model 50
McCaleb, T.S. 7
Madden, D. 175, 193
majority voting 13, 18–24, 49, 57–60
double-peaked preferences 84
equilibrium 65, 75, 78, 85, 108–111, 208–209
expenditure choice 40
and linear tax 50
national comparisons 22–24
numerical examples 61–63, 66–67
and redistributive expenditure 206–212
single-peak preferences 49
on tax rate 77, 78, 84–91, 97
transfer payments/public goods 49–76, 102
market clearing conditions 204, 205
median voters 18, 37, 40, 57, 58, 65, 85, 139
and Beta coefficient 87–91
expenditure ratio 96
framework 37
indirect utility function 208
inequality 121
and pensions 208
and stochastic voting results 37

tax rate 78, 79, 80–81, 84, 85–87
-wage rate 96, 98, 143
median wage 138
median/average ability rates 210
median/average wage 70, 104, 110–111
median/mean ability rates 210
median/mean income ratio 214, 215
median/mean wage rate 139
Meltzer, A.H. 15, 20, 50, 77, 102, 184
Mera, K. 175
Mirman, L.J. 212
Moene, K.O. 51, 68, 72
monotonic transformation 41
Moreh, J. 175
Moslehi, S. 121
Mueller, D.C. 7, 78
Myles, G. 80

net income and leisure 150
net income redistribution 50
net income variation 64
Nitzan, S. 14
non-rival public good 17
non-transfer expenditure 187

Obstfeld, M. 179
OECD Social Expenditure Database 187
Oliver, X. 176
optimal composition
and efficiency parameter 168
and inequality aversion 165
and initial wage variation 164
and tax rate variation 145
and variance of initial wage 164
optimal expenditure
in alternative solutions 141
composition 127–146, 154–155
numerical examples 161–169
 comparative statistics 162–169
model calibration 161–162
ratio 174–175, 178, 180
ratio approximation 181–186
shares and tax rate 170
solutions 29–30, 141
optimal planned savings model 202, 216
optimal public good expenditure 135, 163
optimal shares
 of education expenditure 167
 of public goods expenditure 167
 of transfer payments expenditure 167
optimal tax framework 128, 186
overlapping generations 105–113, 179, 197–218

economic environment 200
framework 99–122, 173–193
individuals consumption/savings
 choice 200–203

parameter values benchmark 61
pensions 217
expenditure
and alternative parameter values 185
and capital stock 206
data 182
and mean income 174
ratio 112, 185–186, 210
total expenditure ratio 180
expenditure share 216
individual voting on 113
and interest rate 184
majority choice 110, 111, 112
and median voters 208
and overlapping generations 176–177
PAYG financed 105–107, 113, 176–177, 193, 206
public goods ratio 178, 184
and redistributive expenditure 205
relationship to income 194
and savings 202, 203, 217
single utility of individual 207–208
statistics 112
and tax 105–106, 203, 211, 216
transfer payments in second period of life 100
unconditional 173, 201
voting on 207
pensions/expenditure ratio 180, 208–209
pensions/total public goods expenditure ratio 180
Perotti, R. 101, 105, 114, 198
Persson, T. 6, 81, 198
Piras, R. 127
policy and inequality 6
Polity IV 22, 68
population growth 177, 184, 188, 199, 201
population heterogeneity 17
private goods 23–24, 53, 54, 69, 132–133
consumption 109
publicly funded 147
probabilistic voting 4, 14, 31–38, 44, 52, 77
probabilistic voting models 44
production 204
Profeta, P. 14
progressive property tax 54
proportional income tax 127
public bad 167
public goods
costs and tax system 17, 20, 21
and education 147–169
effective price 53
expenditure 15, 18, 20, 21, 102, 110, 174
by country 23
per capita 93, 135
voting 91–94, 211
and individuals 52
optimal expenditure 135
and pensions expenditure 112, 180
per capita expenditure 37–38
preference data 189
and private goods 23–24, 53, 69
and production 202
and redistributive expenditure 210–211
and redistributive transfers 79
tax financed 109, 178
and transfer payments 15, 16, 36, 38–44, 49–77, 93, 97, 100, 103, 122, 174, 199
variations in optimal expenditure
shares 168
weight attached variation 21, 211
weight by country 24, 209
Rattsø, J. 54
Ravallion, M. 175
Ravikumar, B. 16, 151
rectangular distribution 32, 33
redistribution 22
national attitudes 101
redistributive expenditure 15, 19, 93
and capital accumulation 205
and indirect utility 208
and inequality 210
majority choice 206–212, 218
and pensions 205
and public goods 210–211
shares of 214, 215
transfer payments 15, 51, 79, 121, 169, 171
regression results 73, 74–75
regressive poll tax 54
retirement 100, 105–107, 111, 176, 200–201

see also pensions
Richard, S.F. 15, 20, 50, 77, 102, 184
Rios-Rull, J.V. 15, 50, 52, 102
Roberts, K.W.S. 49, 50, 77, 84
Robinson, J.A. 36
Rodrik, D. 198
Rogerson, R. 16
Romano, R. 16
Romer, T. 20, 50
Romer–Roberts–Meltzer–Richard framework 50–51, 85
Rustichini, A. 199
Samuelson, P.A. 10, 100, 108
Sausgruber, R. 64
savings 202, 203, 216, 217
Schram, A. 102, 175
Schwarze, J. 175, 176, 193
Shelton, C.A. 17, 101, 105, 114
simulation solution 29
single-peak preferences 49, 57, 206–208
Soares, J. 13, 39, 199
social contract 106–108
social expenditure 187
social indifference curves 42, 130, 134, 156
social marginal valuation 130, 136
social security 111, 112, 198
Spadaro, A. 176
Stern, N. 175
stochastic voting 13–14, 15, 31–38, 43–44, 45

Tabellini, G. 6, 52, 81, 198
tangency solutions 129–130, 131, 135, 157
tax
base effect 31
capital 213, 216
and capital unit per worker 212
and growth 198
incentive effects 30–31
and inequality aversion 176
labour tax 213, 216
optimal tax framework 128
and pensions 105–106, 203
policies and culture 101, 174
price per person 17
proportional income tax 127
INDEX

revenue and education 151
and savings 203
tax rate
and ability 152
and Beta coefficient 87–91
capital 212
and capital accumulation 205–206
effect 31
and expenditure 63, 97, 101
by country 117–121
factors determining 128
and home production 80
incentive effect of increase 167
and inequality 198
and labour 206
optimal composition and variations 145
and pension levels 203, 211
and transfer payments 15, 143, 184, 200–203
variation 145
voting 77, 78, 79, 80–81, 84–91
tax rate model 58, 135
tax revenue model 158
transfer payments
and budget constraint 49–50
by country 23
choices 16–37
decision mechanisms 16–37
and education 16, 38–44, 102
expenditure
ratios 30, 36–38, 41, 142
shares 23
types 22
and income growth 184
measurements 69
and median/mean income 103–104
and median/mean wage rates 139
pensions see pensions
per capita expenditure on 37–38
and population growth 184
and public education 16, 38–44
and public goods 15, 16, 36, 38–44, 49–77, 93, 97, 100, 103, 122, 142, 174, 199
regression results 73, 74–75
and savings 200–203
and tax rate 15, 143, 184, 200–203
variations in optimal expenditure shares 168
Tridimas, G. 6, 7, 14, 15, 52, 77, 102
Tuomala, M. 50
Tyran, J.R. 64
Uebelmesser, S. 16
universal transfer payment 18
utilitarian optimal choice 177–181
utilitarian welfare function 181, 186
utility function model 27, 81–82
utility, individual maximisation of 149–150
utility maximisation model 217
van de Ven, J. 176
variance of initial wage 164
variations
in basic income/tax rate 62
in efficiency parameter 168
expenditure ratio for alternative tax rate 21
expenditure share/tax rate 63
in expenditure shares 115, 116
in inequality aversion 165
in optimal shares of education expenditure 167
in tax rate 170
weight attached to public goods 21
voting
bias specification 31, 32, 33
dynamic voting models 52
equilibrium 35, 65, 75, 78, 84, 85, 102, 108–111, 208–209
on expenditure composition 91–94
on growth 198
high wage individuals 83
and inequality 63–68
majority see majority voting
median voters see median voters
on pensions 100
probabilistic 14, 31–38, 44, 52, 77
and redistributive expenditure 206–212
stochastic 13–14, 15, 31–38, 43–44, 45
on tax 77, 78, 79, 80, 84, 85–87, 198
and voters understanding 18
see also majority voting; median voters; probabilistic voting; stochastic voting
wage per efficiency unit 201
wage rate models 55, 61–62, 83, 153
wage rates
distribution 86–87, 94–97, 146
and education 150–152
per efficiency unit 197
and skill levels 152
wage ratio/expenditure share 72, 73, 93–97
INDEX

wages
  endogenous wage rate distribution 94–97
  equally distributed equivalent 138
  inequalities 59–60, 87, 135–136
  welfare-weighted average 128, 136–141, 146
Wallerstein, M. 51, 68, 72
Walque, G.D. 100
WDI (World Development Indicator) 69, 71, 118, 188
Weibull, J. 14
weight on public goods by country 24
weighted generalised mean model 43
welfare weighting
  average income 181
  average wage 128, 136–140
  mean income 43, 45
  mean income/arithmetic mean income 174, 180–181, 194
  mean wage 128, 140–141, 146
  pension increase 179
Windén, F.V. 102
Winer, S.L. 6, 7, 14, 15, 77, 102
World Income Inequality Database 71, 188
Zink, S. 6, 79