# Index

Abramovitz, M.A. 426, 434  
ageing population, implication for  
  welfare state 463–5, 486–7  
agricultural employment, OECD  
  countries 213, 214, 220  
Anglo-Saxon model  
  employment patterns, services 481  
  tax structure 479  
  working time pattern 420–21  
Aoki, M. 275  
Asia, East, economy 28–37  
Aston Group 263, 267  
Athey, S. 278  
Australia, working time patterns 406–11  
Bartel, A. 281  
Baumol, W. 210, 211, 238  
Bell, 481–2, 488  
BERD (Business Expenditure on R & D) 47–8, 52–3  
Berg, P.B. 297  
Bowles, S. 300  
Boyer, R. 264, 277  
Brazil  
  employment in manufacturing 32  
  investment 31  
Bresnahan, T. 273, 283  
Britain see UK  
British (liberal) welfare state model 454, 473  
Brynjolfsson, E. 268–9, 273, 277  
Burns, T. 263–4, 266, 276  
business cycles 25–7  
Business Expenditure on R & D (BERD) 47–8, 52–3  
business services, employment 97–8, 183–5, 522–4  
Canada, working time patterns 406–14, 415–17, 420–21  
capital accumulation 127  
capital-labour substitution 126–30  
capital movements, impact on wages 352–79  
Cappelli, P. 283  
Caroli, E. 268, 283, 285  
Carr, F. 276  
catch-up, Asia 33–6, 39  
centralized mode of organization 298–309  
Chandler, A. 260, 275  
Chesnais, F. 530  
chimney effect 317–48  
clientelism, political, influence on  
  welfare benefits 493–5  
codified knowledge, impact of ICT 172–3  
Community Innovation Survey (CIS) 164–5  
competitiveness, effect on employment 149–50  
continental welfare model 473, 476–92  
coordination within firm 302–5  
Coriat, B. 297  
corruption, government, influence on  
  economic collapse 34  
cost disease problem 210, 211, 238  
Coutrot, T. 266  
crowding-out hypothesis, low-skilled  
  work 388  
cultural environment, and organizational  
  change 276–7  
Cyert, R. 264, 275  
David, P. 434  
Davis, L. 272  
De Long, J.B. 48  
decentralization  
  effect of IT 268–9  
  of decision making 265, 273–4  
decentralized mode of organization 298–309
Technology and the future of European employment

deindustrialization 215–18
demand conditions, impact on work organization 267–8
demand, North-South model 389–90
demand patterns 143–61
relationship with employment 88, 90, 112–13, 115–17, 156–7, 160–61
demand pull model 49, 56
demography, impact on employment structure 463–5, 533–5
Denmark
innovation expenditure 151–7, 164–5
welfare system 481–3
deregulation, impact on labour market 513–16
deskilling effect of new technologies 281–3
domestic demand 112–3
Dosi, G. 27, 297
Dow, C. 25
early retirement 484–7, 497
East Asian economy 28–37
Eastern Europe, patenting activity 33
economic growth engines 183–5
Economist magazine 42
education and training 285–6, 295–7
costs 325–7
effect on employment pattern 511–13
implementation of new technologies 279–81
service sector 198–9
Southern Europe 493
employees
competence 295–7
efficiency, by skill level 334–8
skills see skills
training cost 325–7
employment
Brazil 32
effects of macroeconomic performance 160–61
effects of structural changes 525–6
patterns 497–8
Europe 160–61, 186–7, 189, 474–6, 492–3
Germany, 332–4
Netherlands 332–4
service sector 185–97, 481
relationship to skill levels 295–7, 317–48, 387–401
sectoral 213–25
South Korea 32
working time patterns 406–11
see also labour market; employees; unemployment
EMU, impact on innovation 445–6
endogenous growth, influence of institutions 429–31
equilibrium unemployment 309–13
Ergas, P. 433, 434
error-correction model 54–6
Esping-Andersen welfare state typology 453–5, 472–500
Esping-Andersen, G. 466–7
EU see European Union
Euro, impact on innovation 445–6
Europe see individual countries
Europe, Eastern, patenting activity 33
Europe, Southern, welfare state model 492–6
European integration model 441
European monetary integration, impact on innovation 445–6
European Union
employment trends 186–7, 189
relationship between wages and employment rates 360–78
working time policy 421–2
Euroscelrosis 86, 89–90, 509
Evangelista, R. 151
Fagerberg, J. 530
family trends, effects on welfare state 459–65, 492
FDI 97, 102
Feenstra, R.C. 126
female employment, Europe 484, 485–6, 489, 490
Ferrera, M. 493, 494
final product demand 115–7
final product productivity (PPP) 120–26, 133, 139–41
financing of welfare system 481–4, 499–500
Finnevold, D. 286
Finland, working time patterns 412–14
foreign direct investment 97, 102
France
  early retirement 477
  employment trends 125, 130
  elderly people 477
  service sector 480
  wage-related 360–61, 362–8, 370–71, 378
  working time patterns 406–14, 415–16, 418–20
productivity 125
Freeman, C. 27, 434
Freeman, J. 260
Freeman, R. 470, 496
G6 countries, productivity growth 158–61
GDP, relationship with R & D investment 48–53, 56–7, 63–5
GERD (Gross Expenditure on R & D) 47–8, 52, 66, 67
Germany
  employment trends 123, 332–4
  chimney effect 339–44, 347
  elderly people 477–8
  service sector 480–81
  wage-related 360–63
  working time patterns 406–14, 416–20
innovation expenditure 151–7
labour force skill level 280, 296–7, 344–8
productivity and employment changes 123, 159
worker efficiency 334–8
Gerschenkron, A. 38–9
Gerschenkron uncertainty 38, 39
Gerwin, D. 277
Gilpin, K.G. 40
globalization 191–3, 522–3
Glyn, A. 230
Goffman, E. 272
Gouyette, C. 121, 126
Granger causality tests 362–3
Great Britain see UK
Greece, welfare system 492–5
Greenan, N. 273, 283
Greenspan, A. 40
Gregori, T. 126
Griliches, Z. 121
Gross Expenditure on R & D (GERD) 47–8, 52, 66, 67
Guellec, D. 273
Hage, J. 273
Hancké, B. 296
Hannan, M. 260
Hanson, G.H. 126
Heckscher-Ohlin (HO) models 353–4
hierarchical work organisation 297–8
high-skilled labour 393–5
see also skills
Higher Education Expenditure on R & D (HERD) 48, 53, 68
Hitt, L. 268–9, 273, 277
Hollingsworth, R. 436
horizontal work organization 297–8
Howell, D. 282
human resource management 266, 276
Ichniowski, C. 266, 267, 278
ICT see information and communication technologies
imperfect competition model 372–7
incentive schemes 305–9, 512–3
income redistribution, effect on output and employment, Europe 238–48
industrial employment, OECD countries 213–16, 220–21, 224–5
Industrial Growth and World Trade 29–30
industry structure 111–34
information and communication technologies (ICT)
diffusion 521–6
equipment exports 30–31
impact on economy 24
impact on employment 96, 98–103
impact on goods and services 170–78
impact on labour market 508–9, 516–20
impact on tradeability 174–7, 182
impact on working time 415
role in globalization 191–3
role in innovation 142–3, 179–83
role in organizational change 268–78
Technology and the future of European employment

training 198–9
innovation 142–61
expenditure 151–7, 164–5
in services 179–83, 196
relation to growth 425–6
see also information and communication technologies; technological change
instability of investment 34, 37–44
institutional changes, impact on labour market 508–16
institutions, effects on growth 426–446
interest rates, promoting growth 61
intermediation logistics 101–2
international trade, impact on wages 352–79
internationalization of national systems of innovation 518–29
promotes diffusion of ICTs 521–6
structural change factor 96–103
investment
effect on employment 58–9, 87
instability 34, 37–44
OECD countries 48–54
service sector 197–8
Ireland, working time patterns 415–16, 418–19
iso-employment curve 112–3
IT see information and communication technologies
Italy
employment and wages 360–68, 372–8
innovation expenditure 151–7, 164–5
productivity 159
welfare system 492–5
working time patterns 406–14, 415–19
Japan
economic trends 28–30, 35, 37, 78–83
employment trends 84–5, 89–92, 124, 129, 186–7
equilibrium opportunity rate 307–9
productivity 124, 158–61
vocational training 297
working time patterns 406–14
job finding rate 310–11
job seekers 490, 492–3
job-skill level correspondence 317–46
jobless growth theory 88
Juglar cycle 25, 26
Keynes, J.M. 25–6
knowledge distribution within a firm 297–9, 302–5
Kondratieff waves 25, 26
Korea, South see South Korea
Krugman, P.R. 28, 37, 43, 352–3
Krugman North-South model 388–92
Kuznets, S. 26–7
labour absorption 208–11
labour costs 325–7, 409
labour demand 112–3
labour force skill levels 280–86
Labour Force Survey 418–19
labour-management relations 275–6
labour market
deregulation 312–13
effects on welfare state 459–65
Europe 92, 399–400, 469–72, 508–13
flexibility 293–5
Japan 92
mobility 86, 93–4, 295–7, 393–5
policies 198, 473–87, 537
service sector 187–97
UK 472
USA 92, 469–72
wage divergence 396–401
labour productivity 95, 114–15, 131
Landau, R. 435
Latin America
economy 29–31
patenting activity 33
Lawrence, R.Z. 352, 353
Leamer, E.E. 353
learning asymmetries 325–7
Lichtenberg, P. 281
life expectancy trends 463–5
Lilien, D.M. 87
Lincoln, J. 267
long-run cycle theory 88
long-run growth, relation to technical change 425–6
long wave theory 24–9
low-paid work 93–4
low-skilled labour, wages 387–401
Lücke, M. 353
Index

Lundvall, B.-A. 435
M-firm 260, 275
Maizels, A. 29–30
Malinvaud, E. 87, 127
management organization types 263–5
manufacturing exports 30–31
manufacturing sector employment 57–9, 127, 117–20, 224–5, 264–5
market-based productive model 438, 440, 442
Marsden, D. 296
Mason, G. 279, 280, 286
matching workers to jobs 301–2
Maurice, M. 296
Mazzucato, M. 38
mechanistic management structure 263–4, 273
meso-corporatist productive model 438–9, 441–2
microinstitutional settings 295–9
Milgrom, P. 277
mobility of workers 86, 93–4, 295–7, 393–5
mode of organization (MoO) 297–307
monitoring workers 300
Mowery, D. 264, 275, 435
multidimensional firm (M-firm) 260, 275
national systems of innovation 432–3
nation-welfare state 453
Nelson, R. 27, 435
Netherlands
employment trends 332–8
chimney effect 344–7
wage-related 360–68, 372–6
working time 412–16, 418–20
innovation expenditure 151–7, 164–5
Nobel, S. 481–2, 488
Norway
innovation expenditure 151–7, 164–5
welfare system 481–3
working time patterns 406–14
NSI (national systems of innovation) 432–3
O'Connor, E. 264, 273
OECD countries
economic performance 48–62
employment patterns 186–91, 213–37
low-skilled wages 387–8
working time patterns 411–14
OECD McCracken Report 23
Ohkawa, K. 434
Oliveira Martins, J. 353
opportunity rate 301
organic management structure 264, 266, 273
organizational change 259–287
Oscarsson, E. 353
Osterman, P. 266, 267, 276
output growth, Triad countries 80–83
outsourcing 101–2, 113, 120–27, 133
overcapacity in manufacturing 35, 39
paradigm change, theory of 27–8
part-time working 415–20
Pasinetti, L. 205
patent activity 33, 53–4, 69–70, 359
payroll taxation 481–2
pensions, old age 478, 484–5
per capita GDP, relationship with R & D investment 48–53, 56–7, 63–5
Perelman, S. 121, 126
Perez, C. 24, 27–8
perfect competition model 360–72
political clientelism, influence on welfare benefits 493–5
Portugal, welfare state system 492–5
precarious jobs 93
Prennushi, G. 266, 267
prison population, US 470–71
producer durables rate, OECD countries 48–9
product demand, effect on employment demand 112
product innovation 148–9
industry performance 158–61
service sector 196
relationship with employment 168–70
service sector 196
Technology and the future of European employment

share of R & D 152–5, 164–5
product market, effect on unemployment 91
production regime, North-South model 391–2
productive models 433–46
productivity
effect of capital-labour ratio 126–31, 133
effect of outsourcing 120–26
growth 158–61
relationship with employment 168–70, 528
relationship with working time 411–14
Triad countries 80–83
public institutions-based productive model 439, 441–2
redistribution of income 238–48
regulation theory 432
Reich, R. 43
reorganized firms 266–8
research and development (R & D) indicator of technical change 359
investment, OECD countries 47–54, 56–7, 65–8
retirement, early 477–8
risk structures, impact on welfare state 465–9
Roberts, J. 277
Rosenberg, N. 435
Rosovski, H. 434
Rowthorn, R.E. 87, 230
Sachs, J.D. 34, 36, 353, 377
Sakakibara, Mr. 37
Salais, R. 436
SAM (skill allocation model) 319–48
Scharpf, F.W. 481, 482–3
Schmoeker, J. 49
Schmutzler, A. 278
Schumpeter, J.A. 24–6, 29, 88
Schumpeterian structural change 40
Scott, W. 276
search theories 84, 86
sectoral employment, OECD countries 213–25
sectoral unemployment, OECD countries 230–37
sectoral wages 352–79
separation rate 311
service sector 166–7, 171
employment trends 117–20, 185–97, 214, 215–18, 221, 480–81
innovation 177–86
role in economic growth 178–85
tradeability 173–7
Shatz, H.J. 353, 377
Shaw, K. 266, 267, 278
Shin, J.-S. 39
Siegel, D. 121. 126
Siegenhalter, H. 26
size, impact on work organization 267–8
skill allocation model (SAM) 319–48
skill-biased productivity growth 244–8
skills
as tacit knowledge 172
influence on employment opportunities 295–7, 317–48, 387–401
influence on technical change 279–87
structure 193–6
Slaughter, M.J. 126, 352
Smithers, A. 42
social capability 426
social democrat productive model 438, 440, 442
socio-economic trends, W. Europe 455–65
Soskice, D. 296
South Korea
catch-up 39
economy 31–2
Southern European welfare state model 492–6
Spain
wages and employment rates 360–71, 374–8
welfare system 492–5
Stalker, G. 263–4, 266, 276
Steedman, H. 279, 285, 286
Stigler, G.J. 84
Stiglitz, J. 435
Storper, M. 436
Strategy and Structure 260
Strauss, A. 272
Streeck, W. 297
structural breaks in relative employment growth 224–5
structural change 520–26
Index

dynamics 219–23
impact on employment 525–6
relationship to unemployment 205–37
subsidies, effect on demand 238–9, 242–4
Summers, L.H. 48
supply-demand interaction model 55
supply of goods, North-South model 390–91
Sweden
  welfare system 480–83
  working time patterns 406–14, 415–16
tacit knowledge 172–3
Tarondeau, J.C. 277
tax burden, effect of subsidies 242, 244, 245, 247–8
tax structure, impact on employment 478–80
Taylor, J. 272
technical change see technological change
technical skill requirements 283–6
technological change
  impact on economy 530–32
  impact on employment 96–103, 156–7, 508–9, 511
  impact on growth 142–33
  impact on wages 352–79, 387, 395–6
  indicators 359–60
North-South model 391
  relation to growth 425–6
  relation to organizational change 268–78
service sector 193–6
  see also information and communication technologies; innovation tecnoeconomic paradigms theory 27–8
technological innovation, influence of labour market 516–20
technological unemployment 91
technology
  relation to growth and employment 168–70
  relation to organization 261–2
Ten Raa, T. 126
tertiarization 97–103, 183–5, 215–18, 521–6
Tiger economies 28–34
time constraints on service innovations 177–8
total factor productivity (TFP) 127, 131
trade, international, impact on wages 352–79
trade flows 96–7
tradeability of services 172, 173–7, 182
trading regime, North-South model 391–2
training see education and training
transaction costs, role in organizational structure 260
Treatise on Money 25
U-firm (unified structure) 260, 275
UK
  labour force skill level 280
  productivity growth 159
  technological strategies 279–80
  working time patterns 406–14, 415–20
unemployment
  age distribution 489
  causes 89–91, 481
  effect of structural change 205–37
  equilibrium 309–13
  Europe 84–94, 204, 269–72, 451–3, 469–72
  impact on welfare state 460–61, 466
  Japan 84–5, 89–91
  job-level related 339–46
  labour market flexibility 293–5
  long-term 491
  Nordic countries 484
  OECD 29, 230–37
  sectoral 230–37
  USA 84–5, 89–91, 469–72
  youth 461, 488–90
  see also employment
unemployment-wage equilibrium 294
unified structure firm (U-firm) 260, 275
upskilling effect of new technologies 281–3
USA
  economic trends 39–43, 78–83
  employment trends 121–2, 128, 186–7, 469–72, 480
  equilibrium opportunity rate 307–9
Technology and the future of European employment

labour market 399–401, 469–72
manufacturing structure 264
productivity 121–2, 158–61
unemployment patterns 84–92, 469–72
vocational training 297
wages and employment rates 360–61, 364–78
welfare system 538
working time patterns 406–14, 416–17, 420–21
vacancy rates, relationship to unemployment 309–13
Van Reenen, J. 268, 283, 285
vocational training 296–7
voluntary search unemployment 84
Von Tuzelmann, G.N. 436
Wadhwani, S. 268
wage divergence 396–401
wages
affecting employment distribution 318–19
effects of decreasing working time 409
impact on employment composition 330–31
low-skilled labour 387–401
manufacturing employment 59
optimal level 299–309
related to employment rates 352–79
related to productivity 412–14
related to working time 412–14
sectoral 352–79
subsidies, effect on demand 242–4
welfare services sector 210
Wagner, K. 279, 280, 285
welfare services
employment absorption 209–11
structural breaks in employment growth 225
welfare systems
Europe 453–500, 510, 532–3
impact on employment 532–3
USA 538
West Germany see Germany
Williamson, O. 260, 272
Winter, S.G. 27
Wolfensohn, J. 36
Wolff, E.N. 126, 282
Wood, A. 353
Woodall, P. 24
work organization 297–9
workers see employees
workforce matching 206–7
working time
flexibility 414–20
patterns 405–22
reduction, effect on employment pattern 510–11
relationship with productivity 411–14
Young, A. 178
youth unemployment 461, 488–90, 498–9
Zammuto, R. 264, 273