

Index

Titles of publications are in *italics*.

- Abdel-Rahman, H.M. 164–9, 173, 179
Abu-Loghod, J. 188
accountancy business distribution 197–8
activity complex economics 70
adaptive logic, as basis of clusters
 213–14
administrative principle 48
Advanced Micro Devices, spatial
 organization 351–3
age of firm, relationship with growth
 140–41
agglomeration
 Chamberlinian *see* Chamberlinian
 agglomeration
 in dynamic urban modelling 178–9,
 288
 economies, and urbanization 69–71
 Marshallian 162, 167–8
 semiconductor industry 324–5
 stability, US 157
 in static urban modelling 161–77, 288
 see also clustering; clusters; location
 theory
agricultural goods, in central place
 model 175
agriculture, in NEG model 84
Allen, P.M. 65
Alonso, W. 68
Alonso–Muth framework 162
altitude, in geographic models 96–7
Anand, J. 268
Anselin, L. 232
Archibugi, D. 312
areal data analysis of industrial locations
 229–35
Aroch-Reyes, F. 238
Asakawa, K. 269
Audretsch, D.B. 160–61
automobile production 14–16
Aydalot, P. 122, 123, 126
Bade, F.J. 120, 122, 123, 126
Ball, M. 118
Barff, R.A. 253
Bartik, T.J. 182
Beavon, K.S.O. 40, 44, 52
Becker, R. 183
Beckmann, M.J. 57, 64, 78
behavioural approach to firm relocation
 114–16
Bergman, E. 238
Berry, B.J.L. 66, 71, 183
Birch, D. 125
Birkinshaw, J. 268
Black, D. 153, 156, 157, 158, 183
Böventer, E. von 41
Brenner, N. 188
Brezis, E. 157, 178–9
Broersma, L. 130
Buckley, P.J. 281
budget constraints, Weber–Moses
 triangle 18–22
business clustering 222–52
business services
 emigration 129
 employment, London 202
 migration 136
 trade 193–6
Camagni, R. 122, 123
Cameron, G.C. 119, 120, 121
Cantwell, J.A. 266, 275, 303, 305, 312
capital inertia, as barrier to relocation
 112–13
car production 14–16
Carlsson, B. 312
Cassetti, M. 238
Casson, M.C. 281

- Castells, M. 319
- central place theory 41–67, 171–4
 Christaller model 41–51, 66, 171
 in internationalizing economy 189–93
 Lösch models 33–41
 and specialized-function activity 71–9
- centre size
 in central place theory 63–5
 Christaller model 50–51
- Chamberlin, E.H. 38
- Chamberlinian agglomeration 164–6
 from consumer tastes 175
 in dynamic model 179
 with joint inputs 169–70
 with non-tradable sector 166
- change, in central place system 65–6
- Chetwynd, A. 236–7
- Cheysson, E. 60
- Christaller, W. 171
- Christaller central place model 41–51, 66
- Christiansen, U. 122
- cities
 diversity and specialization 76–7, 151–82
 dynamic theories 177–81
 and size 155–8
 static theories 161–77
 size distribution, US 156–7
see also global cities; urban systems
- Clark, B.D. 119, 120, 121
- clustering theories 223–8
- clusters 207–20, 222–52
 and MNE location 269–70, 278–9
 semiconductor industry 319–26, 332–61
 value chains, USA 240–52
see also agglomeration
- comparative-static analysis, central place system 65–6
- competences, role of subsidiary 267–9
- competitive growth model 217
- computer manufacturing value chain, USA 243–4
- cost conditions 36–7
- costs of relocation 112–13
- Cyert, R.M. 114
- Czamanski, S. 238
- Dacey, M.F. 64
- David, P.A. 226
- decentralization trend 74–5
- decision-making process, firm location 132–4
- Delios, A. 268
- Delisle, J.-P. 160
- demand cone 35–6
- demography of the firm 140
- Dicken, P. 135, 286
- Diggie, P. 236–7
- discontinuous population distribution, Lösch model 39–41
- dispersion forces 161–2, 175
- diversification, cities *see* cities, diversity and specialization
- Dixit, A.K. 105
- Dobkins, L.H. 158
- Dumais, G. 157, 159
- Dunning, J.H. 263–5, 266, 267, 291, 323
- Duranton, G. 45, 71, 160, 165, 169, 179
- dynamic urban modelling 177–81
- Eaton, B.C. 45, 66, 171, 172, 173
- Eaton, J. 157
- Ebels, H.J. 127
- Eckstein, Z. 157
- eclectic paradigm, FDI 263–5
- economic demography 140
- Economic Law of Market Areas (LMA) 60
- economic policy and cluster development 214–15
- economic sector, and migration costs 136
- economies, agglomeration 69–71
- efficiency of urban systems 181
- electronics manufacturing value chain, USA 243–4
- Elias, P. 127
- Ellison, G. 154–5, 227, 252–3
- employment
 clustering patterns, US 238–51
 growth, and firm relocation 125–6
 London 199–203
- endogenous growth
 of cities, central place model 175
 model 217
- envelope budget constraints, Weber–Moses triangle 19–22
- Erickson, R.A. 126

- establishment clustering patterns, USA
 238–51
 Europe
 firm relocation studies 122–8
 geographical model 94–103
 European Union, geographical distribu-
 tion of research 296–308
 Evans, A. 71

 Fagg, J.J. 183
 FDI, location of 263–51
 Feldman, M.P. 160–61
 Feser, E.J. 237, 238, 253
 Fetter, F.A. 60
 financial services sector
 employment, London 202
 growth 194
 firm migration 110–42
 decision-making process 132–4
 and employment growth 125–6
 modelling 134–9
 studies 119–34
 theories 111–18
 firm-specific advantages, multinational
 activities 263–4
 foreign direct investment, location of
 263–81
 foreign-owned firms *see* multinational
 enterprises
 foreign trade, in geographic model of
 USA 93–4
 Forsgren, M. 269
 France
 geographical distribution of research
 298–308
 plant relocation 159–60
 Friedmann, J. 188
 FSA (firm-specific advantages),
 multinational activities 263–4
 Fujita, M. 83, 161, 164–5, 166, 168,
 174–7, 179, 183
 Fujitsu, spatial organization 334, 337,
 338
 Fukui, Y. 238
 functional specialization of cities
 158–9

 G statistics 230–33
 gateway cities 192
 general hierarchical model 57–9
 geographical distribution
 research, EU 298–308
 semiconductor industry 322–6
 geographical models 83–103
 Germany, geographical distribution of
 research 298–308
 Getis, A. 232
 GH (general hierarchical) model 57–9
 Gillen, W.J. 238
 Glaeser, E.L. 155, 157–8, 227, 252–3
 global activities, MNCs 292–5
 global cities 187–204
 global–local technological relationships
 286–311
 global sector employment, London
 199–203
 global service firms 197
 globalization of innovative activities
 287–92
 government policy
 and firm relocation 139, 142
 and MNE location 265, 270–79
 growth, cities, and specialization, US
 157–8
 growth models, market economies
 216–18
 Guccione, A. 238

 Hall, P. 319
 Hartwick, J.M. 39
 Hayter, R. 111
 height, in geographic models 96–7
 Helsley, R.W. 165, 183
 Henderson, J.V. 153, 155–6, 157, 158,
 162–4, 173, 174, 179, 181, 183
 Henderson model 162–4
 Hessels, M. 129–30
 hierarchies
 research centres, EU 296–308
 urban systems 75–6
 Hirshman–Herfindahl index, inverse 154
 Hirst, P. 187
 Hoover, E.M. 68, 161, 226, 228
 Horton, F.E. 71
 host government, role in FDI location
 265, 270–79
 Howells, J. 266, 312
 Huff, J.O. 65
 Hyson, C.D. 60
 Hyson, W.F. 60

- Iammarino, S. 305
 IIA (inward investment agencies) 276–7
 inclusion principle 48
 incubator hypothesis 125
 industrial clusters *see* clusters
 industrial demography 140
 industrial districts 224
 industrial migration *see* firm migration
Industrial Mobility and Migration in the European Community 123
 industrial organization 224
 industrial sector migration 136
 infrastructure, and MNE location 269–70
 innovation
 and clustering 213–14
 location of 160–61
 multinational corporations 286–311
 institutional approaches to firm relocation 117–18
 institutions, role in market economies 218–19
 international cities *see* global cities
 international firm mobility 142
 international sector employment, London 201–3
 internationalization advantages, multinational activities 263–4
 inverse Hirshman–Herfindahl index 154
 investment by MNEs, location of 263–81
 inward investment agencies (IIA) 276–7
 Ioannides, Y.M. 158
 iron-ore production and urban centre development 72
 Isard, W. 40, 68, 112
 Ishii, R. 161, 183
 Italy, geographical distribution of research 298–308
- Jacobs, J. 160
 James, F.R. 120, 122
 Japan
 research and development locations 161
 semiconductor firms, spatial organisation 333–44, 357–61
 Jensen, O.W. 23–4
 Jusenius, C.L. 120, 122
- Kaldor, N. 312
- Keeble, D. 119, 120, 121, 126
 Kemper, N.J. 129
 Keogh, G. 127
 Kim, S. 157
 Klaassen, L.H. 123–6
 Kleinknecht, A. 187
 knowledge
 proprietary, pricing of 264–5
 role in market economies 216–18
 Knox, P. 188
 Kolko, J. 183
 Krugman, P.R. 157, 174–7, 178–9, 208, 288
 Krugman model 83–5, 105–9
 Krumme, G. 113
 Kruyt, B. 120, 121, 122
 Kuemmerle, W. 267–8
- labour mobility, urban system model 162–3, 179–80
 Legendijk, A. 142
 LainJ, F. 160
 Larsen, J.K. 319
 Launhardt, W. 60, 68
 law business distribution 197–8
 Law of Retail Gravitation 62
 learning-by-doing, in dynamic urban modelling 178–9
 Ledebur, L.C. 120, 122
 Leven, C.L. 41
 Lever, W.F. 120
 Linders, G.J. 194, 195
 Lipsey, R.G. 45, 66, 171, 172, 173
 LISA (local indicators of spatial association) 232
 List, J.A. 140
 Lloyd, P.E. 135
 LMA (Economic Law of Market Areas) 60
 local activities, MNCs 292–5
 local firm mobility 141–2
 local G statistic 230–33
 local indicators of spatial association (LISA) 232
 local Moran 232
 localization economies 69–70, 288
 localized knowledge, in dynamic urban modelling 178–9
 location
 and business analysis 323–4

- decision-making process 132–9
- factors in decision-making process 137–8
- FDI 263–81
- grid 85–90
- of innovative activities *see* innovation and MNC research 286–311
- risks for MNEs 270–72
- stress 138
- theory 111–18, 226
- location–production models 3–30
- location-specific advantages, multinational activities 263–4
- logistics-costs model 27–30
- London, employment globalization 199–203
- Lösch, A. 33–4, 54, 63, 66
- Lösch models 33–41
- Loughborough Globalisation and World Cities research programme 196–7
- Louw, 118, 132–3
- Luttrell, W.F. 119
- Machlup, F. 111, 207
- MacPherson, J.C. 57, 64
- macroeconomic risk and MNE location 271
- manufacturing
 - in NEG model 84–5
 - specialization, US 153–4
 - and urbanization 68
 - value chains 238–52
- March, J.G. 114
- market-area boundaries, central place systems 59–62
- Market Areas, Economic Law of 60
- market economies
 - growth models 216–18
 - role of institutions 218–19
- market-oriented functions, Christaller model 41–2
- market principle 47–8
- Marktprinzip* 47–8
- Markusen, A. 187
- Marshall, A. 208, 224, 311
- Marshall, J.U. 40
- Marshallian agglomeration 162, 167–8
- Martin, R. 226
- mass customization, MNEs 267
- Matsushita, spatial organization 338–9
- McHone, W.W. 140
- McLaughlin, G.E. 119
- McPherson, J.C. 64
- Meester, W. 115
- Merkel, A. 214
- metalworking value chain, USA 247
- Michie, J. 312
- migration *see* firm migration
- Miller, S.M. 23–4
- Miyao, T. 177
- MNC *see* multinational corporations
- MNE *see* multinational enterprises
- mobility, in dynamic urban modelling 163–3, 179–80
- models
 - centre population 63–5
 - Christaller 41–51, 66
 - firm migration 134–9
 - Lösch 34–41
- Molle, W.T.M. 120, 121, 122, 123–6
- Moore, B.C. 120
- Moran, local 232
- Moses location–production model 17–27, 30
- motor vehicle production 14–16
- Mudambi, R. 265, 269, 276
- Mudambi, S.M. 265
- Mueller, E. 119
- multinational corporations, research strategies 286–311
- multinational enterprises (MNEs)
 - investment location 263–81
 - agglomeration behaviour 324–5
 - relation with host government 265, 270–79
 - see also* semiconductor industry
- mutation balance system, Netherlands 129
- Myrdal, G. 312
- Nakosteen, R.A. 112
- National Semiconductor, spatial organization 348–50
- NEC, organizational structure 333–4, 335
- NEG (new economic geography) 83–103
- neoclassical approach to firm relocation 112–14
- Netherlands, firm migration 129–39

- networks 207–20
 in internationalized urban system 196–8
- new economic geography 83–103
 and clustering 226–7
- new institutionalism 219
- n*-good case, Lösch model 39–41
- non-triangular spacing, Christaller model 52–4
- North, D.J. 120
- North Carolina, textile clustering 247
- OLI paradigm, FDI 263–5
- Olson, M. 219
- one-dimensional location model 4–11
- Ord, J. 232
- Ortona, G. 122, 126
- ownership advantages, multinational activities 263–4
- ownership–location–internationalization paradigm 263–5
- Paierl, H. 209
- Parr, J.B. 32, 57, 63, 64, 183
- Patel, P. 312
- patenting activity from overseas research 289–90
 European Union 296–308
- Pavitt, K. 279
- Pedersen, T. 269
- Pellenbarg, P.H. 115, 123, 125, 129, 140
- Pen, C.J. 126, 133
- Perroux, F. 312
- Piore, M.J. 320
- plant turnover 159–61
- point data analysis of industrial locations 235–8
- policy networks 216
- political risk, and MNE location 270–72
- population size, in central place theory 63–5
- Porter, M.E. 208
- Post-Fordism and clustering 224
- Pred, A.R. 114, 115
- previous migration, effect on migration 137
- pricing of proprietary knowledge 264–5
- principal–agent game, MNE–government interaction 280–81
- product cycle model, MNEs 266
- product mobility, urban system model 162–3, 179–80
- property market, effect on firm relocation 118
- proprietary knowledge, pricing of 264–5
- Puga, D. 45, 71, 160, 169, 179
- Rajan, R. 269
- rank-size distribution, urban centres 77–9
- real-estate market, effect on firm relocation 118
- regional activities, MNCs 292–5
- regional distribution of patenting activity, EU 298–301, 305–8
- regional innovation systems 287–92
- regional policy
 and cluster development 214–15
 and firm migration 128, 142
- regional system of innovation (RSI) 311–12
- regional systems, and firm growth 117
- regional technological specialization, EU 305–8
- Reilly, W.J. 62
- Reiner, T.A. 32
- relative-diversity index 154
- relocation *see* firm migration
- research strategies, multinational corporations 286–311
- Retail Gravitation, Law of 62
- Rhodes, J. 120
- Rivera-Batiz, F. 164
- Robock, S. 119
- Robson, P. 291
- Rogers, E.M. 319
- Rwon, W.Y. 127
- Sabel, C.F. 320
- Saey, P. 60
- Sanglier, M. 65
- Sant, M. 120
- Santagata, W. 122, 126
- Sassen, S. 188
- Saxenian, A. 319
- Schmenner, R.W. 120, 122
- Scott, A.J. 319
- sectoral innovation activity, EU 301–4
- sectoral migration costs 136

- self-organization, in central place model 175
- semiconductor industry
 spatial organization 319–26
 Japanese firms 333–44, 357–61
 US firms 341, 345–61
 structure 326–33
- service sector *see* business services
- Shilton, L. 183
- shipping costs, central place theory 173–4
- shopping costs, central place theory 172
- shopping model (Christaller model) 41–51
- Short, J.R. 192
- Silicon Valley 356, 357–8
- Simon, H.A. 114
- single-good model, Lösch 34–9
- site factors, in decision-making process 137–8
- size of firm
 and growth 140–41
 and migration 136–7
- size of urban centres 76–9
 and specialization 155–6
- Smith, A. 208
- Söderman, S. 120, 122
- Soete, L.L.G. 303
- space-filling market areas, Christaller model 54–6
- spatial adjustments, and firm relocation 113
- spatial concentration, innovative industries 278–9
- spatial margins of profitability 112–14
- spatial organization, semiconductor industry *see* semiconductor industry
- spatial point processes 233, 235–8
- spatial scale of business clustering 229
- spatial structure
 Christaller model 46–59
 GH model 57–9
- specialization
 central place theory 190
 cities 76–7, 151–82
 global cities 191–2, 196–8
- specialized function activities, urban systems 68–71
- spillover effects of MNC investment 288, 295
- Spooner, D.J. 120, 121
- square location grid, in NEG model 85–90
- Stackelberg game, MNE–government interaction 280
- stage theory of MNE evolution 266
- Stankiewicz, R. 312
- Stanley, C. 183
- Stelder, D. 103
- Stiglitz, J.E. 105
- Storper, M. 192
- Strange, W.C. 165, 183
- Struyk, R.J. 120, 122
- Stufenbau der Rechtsordnung 214
- Suarez-Villa, L. 127
- subsidiaries, competence development 267–9
- supply area structure, central place theory 63
- supply principle 47–8
- Swales, J.K. 63
- Sweeney, S.H. 237
- symmetry, wrongly assumed in urban systems 52
- Taylor, P.J. 188, 198
- technological profiles, EU 295–308
- technological relationships, multinational corporations 286–311
- ter Wengel, J. 187
- Texas Instruments, spatial organization 345–7
- textiles value chain, USA 244
- Thompson, G. 187
- Tinbergen, J. 59
- Toshiba, spatial organization 334, 336
- Townroe, P.M. 119, 120, 121–2, 123, 132
- trade, foreign, in geographic model of USA 93–4
- trade in urban services 193–6
- trading costs and central place theory 171–7
- traffic principle 48
- transportation costs
 geographic models 97–8
 one-dimensional location model 4–11
 Weber model 12–16

- transportation principle 48
- United Kingdom
 firm relocation studies 119–23
 geographical agglomeration of
 research 298–308
 urban developers, in urban system
 model 163–4
 urban growth, and location 158
 urban services, trade in 193–6
 urban systems
 models 32–79
 internationalized 196–8
see also cities
 urbanization 68–9, 72–5
 urbanization economies 70, 288
- United States
 city diversity and specialization 152–9
 clustering pattern study 240–52
 firm relocation studies 119, 122
 geographical model 92–4
 innovation location 160–61
 manufacturing value chains 238–52,
 258–9
 overseas patent activity 289–90
 EU firms 296–308
 semiconductor firms, spatial organiza-
 tion 341, 345–61
- value chains, manufacturing 238–52,
 258–9
 clustering study, USA 240–52
- Van Dijk, J. 130, 140
- Van Steen, P.J.M. 135
- Van Wee, B. 130
- Van Wissen, L. 140
- Vance, J.E. 65
- Veltz, P. 192
- Verkehrsprinzip* 48
- Vernon, R. 266, 324
- Versorgungsprinzip* 47–8
- Verwaltungsprinzip* 48
- von Böventer, E. 41
- Walker, D.R.F. 198
- Wasylenko, M.J. 126
- Weber, A. 68, 112, 226, 228
- Weber location–production model
 11–17, 30
- Weber–Moses triangle 17–27
- Weber optimum location 13
- Wells, L.T. 265
- Wengel, J. ter 187
- Westney, E. 281
- White, R.W. 65
- Why Industry Moves South* 119
- Wilson, A.C. 52
- Wint, A.G. 265
- world cities *see* global cities
- Wymbs, C. 291
- Young, A. 312
- Young, S. 276
- Zimmer, M.A. 112
- Zuordnungsprinzip* 48