Index

agglomeration economies
competitive advantage (debates and theories) 34–7, 54–5, 76–8, 88
counter and driver forces 56
dataset study 185–7
export characteristics 114
geographic scope (clustering and openness) 57–8, 76–87
major regional competitors 6, 15, 120, 127–8, 157–8
locational characteristics (Paris and Milan) 170–72
performance (London, Paris and Brussels) 163
regional development and competitiveness 99–101
revealed competition, dynamics between regions (2000–10) 137–8
market dominance indicator 142–4
spatial concentration indicator 147
revealed competition benchmarking 18
sectoral scope (specialization and diversification) 57, 62–76
size 17–21, 43–4, 155, 170
welfare effects 40–41
benchmarking Andalucía, Rotterdam–The Hague, Pécs 160–62
analytical framework for interregional competitiveness and smart specialization 1–4
conclusions drawn from 175–8
dataset, see bilateral trade, NUTS-2 regions (dataset for 2000)

using revealed competition 47–8, 148, 151–5
appropriability issues 29

Balassa index 35, 131
benchmarking locational competition 2–3, 9–12, 32, 46–7, 150
bilateral trade, NUTS-2 regions (dataset for 2000) 179–231
export and import trade flows 182, 191, 197, 199–200, 218–24
correction for re-exports 205–7
corrections to trade figures 200–204
estimation of consistent bilateral trade 204–5
freight and flight data 181, 199–201, 217–19
goods and services flows 180, 204–18
methodology (dataset construction) 180, 183, 195–205
2-digit Classification of Products by Activity (1996) 191, 193, 196–7
economic consistency rule 231
sources/national accounts 197, 199
overview and four main steps 179–82
regional and product classification used in dataset 182–95
aggregated product groups 198
overview map 183, 194
product categories 191–5
regional units studied 183–91
regional trade flows, origin and destination 218–24
estimation of intra- and international export trade flows 220–22
estimation of intra- and international import trade flows 222–4
final estimation 181, 224–5
logistics centres and transport data 219–20
supply and use tables 181, 182, 199, 200–201, 203, 208–18
production and consumption 210–12
cross-hauling and intranational trade 214–18
exports and imports 213–14
data sources 229–31
international regional trade 228–9
intranational regional and international country trade 226–8
see also place-based strategy; smart specialization policies of regional development; smart specialization, determinants of competitiveness
business strategy economics 10, 11

classical economic growth theory 34, 39
clustering and specialization 54–101
agglomeration externalities 36–7, 43–4, 54–5, 57–8, 76
clustering/openness 76–87
concept and measurement 16, 76–80
overall degree of 80–81
European agriculture 82–4, 86
European finance and business 86–7
European manufacturing 84–6
input–output relations 61, 71–2, 77–80
multi-regional competitiveness 99–101, 156
open network approach and overview 12–14
public policies 103–4, 156
regional development paths 37–9, 43–4
small regions, prospects 56–60, 101
population density and output per capita (EU25) 58–60
product differentiation 56–7
transport costs 56
specialization/diversification and clustering/openness (simultaneous analysis) 88–99
development strategies 88–90
mass and position 92–5
sector-specific strategies 95–9
agriculture 96–7
finance and business 98–9
manufacturing 97–8
strategies in Europe 90–92
specialization/diversification distribution 62–76
composition of European production structure and specialization 65–71
concept and measurement of sector concentration 62–5, 71–6
agriculture 74
by deviation from the average 74–6
financial and business services 73
manufacturing 73–4
resource-based 74
services 72–3
cohesion policy 1, 3, 31
competition/competitiveness, see competitive advantage; regional competitiveness; revealed competition
competitive advantage 34–7, 54–6, 76–8, 88, 99–101, 103, 151–2
concentration, spatial 62–8, 71–6
connectivity 28–9, 163
construction industries 81
currency areas 35
dataset, see bilateral trade, NUTS-2 regions (dataset for 2000)
diversification and specialization, see specialization/diversification distribution
dynamics in revealed regional competition 130–49
competition among European regions 136–40
specific product markets 138–40
total production 136–8
earlier measures and 131–3
market dominance 130, 140–44
overview 15–16, 148–9
spatial concentration index 130, 144–6

economic development, see regional economic development
economic geography, see new economic geography (NEG)
economic theories 34–5
education, innovation and creativity 42–3
embeddedness 28
entrepreneurship 29–30, 49
Europe 2020 policy programme 3, 174
European Commission policies 1, 3, 31, 46, 104
European NUTS-2 regions and sectors' revealed competition 107, 110–26
bilateral trade dataset, see bilateral trade, NUTS-2 regions (dataset for 2000)
regional characteristics 152–5
European NUTS-3 regions 45
European Research Area (ERA) 25–6
European Union countries degree of openness 82–7, 90–92
growth performance and Single Market integration 23–5
major competitors 107–10, 127–8
see also region–sector combinations
evolutionary economics 10, 11, 48, 76
export characteristic of regions 114–18, 123, 131–3
export data, see bilateral trade, NUTS-2 regions (dataset for 2000)
external economies 36–7, 43–5, 54–5, 76
financial and business services 17–20, 73, 81, 86–7, 98–9, 109, 123, 124, 128, 138, 157, 162–3, 164–5
foreign direct investment (FDI) 16, 101
foreign-owned companies 162
free trade 34–5
freight and flight data 181, 199–201, 217–19
geographical scope of agglomeration economies 57–8, 76–87
global networks 52
growth 41–5
Heckscher–Ohlin international trade theory 34
heterogeneity 16, 35, 176
high-tech manufacturing 73, 81, 82, 84, 109, 122–4, 139–40, 267, 269
human capital 16, 24–5, 42–3
income inequality 41
industrial sector 118
industrial structure 24–5, 27–9
informal networking 45
information and communications technologies (ICTs) 24–5
infrastructure networks and investment 41, 44–5, 153
innovation, see knowledge creation and spillovers; research and development (R&D)
Innovation Union 31
input–output relations 61, 71–2, 77–80
institutional economics 10, 11
international networks and competitiveness 52, 156–7
interventions 29–30, 41, 42, 101
investments 16, 24, 29, 41, 46, 101
knowledge creation and spillovers 25–6, 42–3, 45, 84, 163
input–output relations 60–61, 76, 77, 81, 118, 153
Knowledge for Growth expert group 26–7
labour market 24, 77, 153, 154
labour mobility 45
laissez-faire approach 33
Lisbon Agenda 3, 33, 48, 174
localization economies 37, 43–4, 57, 60, 62, 88
love of variety 40–41
Index

low-tech manufacturing 108, 110, 122–3, 166–7

macroeconomic perspectives 49–51, 215
managerial practices 24–5, 36, 49
manufacturing
high-tech 73, 81, 109, 122–4, 139–40
benchmarking of Munich, Lyon and Helsinki 167, 169
industrial sector 118
low-tech 108, 110, 123, 166–7
medium-tech 17–20, 24, 65–6, 82, 108, 110, 123, 127–8, 140, 162
Milan, Eindhoven and Budapest 167, 168
Rotterdam–The Hague and Pécs 162
openness and clustering in 84–6, 97–8
ranking of competitive position 113, 121–2, 123–4, 126
smart specialization strategy for, and benchmarking 163, 166–70
market dominance 130, 140–44
market potential 93–4
market overlap 15, 16, 105, 126
mass/position/size 17–21, 40, 43–4, 92–5, 107, 110
meso-level economic perspectives 48–9
microeconomic perspectives 10, 11, 46–50
migration 44, 55, 56

neoclassical theory of trade 54
network relations 12–14, 16, 44–5
global networks 52
regional development paths 37–9, 101
revealed competition benchmarking and 47–8, 103, 152
new economic geography (NEG) 10–12, 13, 28
infrastructure networks and investment 41

mechanism of increasing returns to scale 55, 56–7
regional economic development and 34–5, 39–41
welfare effects as focus 40–45
non-market services 81
non-physical networks 45
non-spatial smart specialization concept 25–7
NUTS-2 regions, see bilateral trade, NUTS-2 regions (dataset for 2000); European NUTS-2 regions
‘one-size-fits-all’ versus ‘one-size-fits-one’ approach 1, 47, 174–8
open network approach 13
openness and specialization 76–87
concept and measurement 16, 76–80
regional characteristics used in revealed competition benchmarking 153
sector clustering and openness (descriptive findings) 80–81
European agriculture 82–4, 86
European finance and business 86–7
European manufacturing 84–6
Organisation for Economic Co-operation and Development (OECD) 50

performance 47, 163
peripheral and emerging market economies 20–21, 56–7, 58–9, 60, 70–71, 188–90
benchmarking (Warsaw, Dresden and Thessaloniki) 157, 159, 160
clustering and specialization 92, 94, 97, 100
competition 118–19, 121, 138
export characteristics 114, 115, 117, 118
market dominance dynamics 142–4
place-based strategy
competition as location specific 14, 126, 128–9
evolution of 33
‘one-size-fits-one’ approach 1, 174–8
regions as appropriate domain 1–2, 7–9, 27–9, 174–8
Index

see also bilateral trade, NUTS-2 regions (dataset for 2000)
place-neutral strategies 8
policy-makers 8, 46–7, 51–2, 76
Porter, Michael 49, 77
product specialization 13, 37–9, 89, 154
product variety 40–41
public funding and interventions, see interventions

redistribution policies 33
region–sector combinations
cross-section of 4–7
development path conditions 13–14
export characteristics 114–17
major competitors 107–10, 127–8
market dominance indicators 142
population density and output per capita (EU25) 58–60
regional and product classification used in dataset 182–95
revealed competition benchmarking 16–21
locational characteristics 152–5
sector–location combinations, smart specialization 155–73
benchmarking agricultural regions 160–62
benchmarking financial and business services 162–3, 164
benchmarking manufacturing 163, 166–70
benchmarking of Milan, Barcelona and Paris 157–8
benchmarking of Warsaw, Dresden and Thessaloniki 157, 159
detail to illustrate composite factors 170–72
smart specialization strategies for 155–7, 176–7
spatial concentration 147
specialization and diversification distribution 62–76
see also European Union countries; regional competitiveness
regional competitiveness 55, 99–101
benchmarking 2–3, 9–12, 35
economic geography 10, 12
regions as a sites of export specialization 10
regions as a source of increasing returns 10
regions as hubs of knowledge and economic trade 12
theoretical perspectives 11
competitive advantage 34–5, 99–101, 103, 151–2
network determinacy, see revealed competition
regional economic development and 46–52
macroeconomics (Storper’s theory) 49–51
micro- to meso-level conceptualization (Porter’s theory) 48–9
policy makers and 46–7
policy: economic valuation and global networks 51–2
welfare gains/losses and benchmarks 46–7
theoretical perspectives 11
see also region–sector combinations
regional development paths 37–9, 43–4, 88–99
regional economic development 9–12, 33–52
agglomeration economies and externalities 35–7, 43
classical and new economic geography theories 34
competitiveness and 46–52
discourses 48–52
macroeconomics (Storper’s theory) 49–51
micro- to meso-level conceptualization (Porter’s theory) 48–9
policy: economic valuation and global networks 51–2
theoretical frameworks and benchmark studies 2–3
revealed competition and trade networks, a framework 47–8
welfare gains/losses and benchmarks 46–7
growth, means to influence 41–5
agglomeration economies 43
education, innovation and creativity 42–3
networks and transport costs 44–5
resources 42
specialization, clusters and concentration 43–4
regional development paths 37–9
theory development 39–41
relatedness 3, 28, 52
research and development (R&D) 24–7, 153, 155
innovation systems issues 29–30
publicly funded interventions 30
regional issues 27–9
resources 34, 39, 41–2, 74
revealed competition
benchmarking 16–21, 32, 151–5
competition as location specific 126, 128–9
definition 105–6, 133–6
dynamics and analysis of 130–49
competition among European regions 136–40
specific product markets 138–40
total production 136–8
earlier measures and 131–3
overview 148–9
spatial concentration index 130, 144–6
major competitive regions (Europe) 107–10
major competitors for selected sectors and regions 127–8
NUTS-2 regions and sectors’ revealed competition 110–26
characteristics of economic structures 111–18
export characteristics 114–18
major competitors for the total economy 118–22
ranking of competitive position of regions 112–13
overview 14–15
trade networks and 47–8
Schumpeterian/evolutionary economics 10, 11, 48, 76
sectoral scope (specialization and diversification) 57, 62–76
self-sufficiency 13, 38–9, 82, 84, 89
services sector 72–3, 81, 109, 113, 118
small regions 56–60, 100, 101
smart specialization, analytical framework 1–4
conclusions drawn from 175–8
using revealed competition 47–8, 148, 151–5
smart specialization, determinants of competitiveness 150–73
benchmarking of revealed competition 16–21, 32, 151–5
composite indicators 154–5, 170–72
NUTS-2 regional characteristics 152–4
specialization-based methodology 152
overview 172–3
sector–location combinations, analysis focus 155–7
benchmarking agricultural regions 160–62
benchmarking financial and business services 162–3, 164
benchmarking manufacturing 163, 166–70
benchmarking of Milan, Barcelona and Paris 157–8
benchmarking of Warsaw, Dresden and Thessaloniki 157, 159
detail to illustrate composite factors 170–72
see also bilateral trade, NUTS-2 regions (dataset for 2000); smart specialization policies of regional development
smart specialization, origins 23–7
smart specialization policies of regional development 23–32
in practice (Europe 2020 agenda) 31
innovation systems issues 29–30
origins of smart specialization 23–7
non-spatial concept 25–7
transatlantic productivity gap 23–5
regions as appropriate domain 1–2, 7–9, 27–9, 174–8
Index

see also bilateral trade, NUTS-2 regions (dataset for 2000); smart specialization: determinants of competitiveness
spatial concentration 62–8, 71–6, 130, 144–6
specialization/diversification distribution 62–76
composition of European production structure and specialization 65–71
concept and measurement of sector concentration 62–5, 71–6
by deviation from the average 74–6
finance and business services 73
manufacturing 73–4
resource-based sector 74
services sector 72–3
regional development paths 37–9
used in revealed competition benchmarking 153–4
Storper, Michael 49–50
strong and medium-sized regions 19, 20, 116–17, 142, 187–8
‘structural’ and ‘intrinsic’ effects 24–5
supply chain specialization 13, 38–9, 77, 89, 153
sustainable regional development strategy 44
Theil index 64–5, 67, 72, 75, 154
trade costs 41
trade dependent diversification 13, 38, 39, 89
trade flows, see bilateral trade, NUTS-2 regions (dataset for 2000)
trade networks, see bilateral trade, NUTS-2 regions (dataset for 2000); clustering and specialization; network relations
traditional concept 14–15, 48
transatlantic productivity gap 23–5
transport (freight and flight) data 181, 199–201, 217–19
transport costs 44–5, 56
urban growth theory 10, 11
urbanization economies 36, 37, 57, 61
welfare effects 40–41, 44, 50
non-market services 81
World Bank, major policy reports (2009) 8, 76