

Index

- abstract space 10
- Abuja Treaty (1991) 117
- access issues 11, 38, 44, 55, 57,
113–114, 124, 136, 140, 182,
201
- Action Plan (CEC, 1990) 37
- action plan (PIDA) 116–117
- adaptive tensions 19, 21–23, 23–24,
31, 33–34, 159
- Afghanistan 82, 84, 85
- Africa 57
- Africa Infrastructure Country
Diagnostics 116
- African Development Bank (AfDB)
109, 116, 127
- African Information Society Initiative
144
- African infrastructure system (AfIS)
108–149, 205
 - China's role in 115, 131, 146–148,
210
 - energy 139–143
 - imperative for 108, 109–117
 - information 143–146
 - maritime 134–139, 145, 146
 - regional integration 117–124, 137,
141
 - transport 124–133
- African Railways Union 130
- African Union (AU) 117, 121, 125,
131, 135, 141, 147
- African Union Commission 116
- Agnew, J. 17, 18, 202, 204
- aid-driven infrastructure 147, 148, 208
- Alden, C. 147
- Algeria 56, 118, 122, 123, 141
- Americas' infrastructure system
(AmIS) 157–193, 205, 210
 - Caribbean Community 157,
171–177
 - China's role in 189–192
 - North American Free Trade Area
157–171
 - Union of South American Nations
157, 177–189
- Ammermann, H. 48, 49
- ANCOM (Andean Community) 177,
184
- Angola 118, 129, 130, 146, 147
- Angola mode 147, 191
- anxiety, about infrastructure 3
- Arab Maghreb Union (AMU) 118,
120, 122, 123, 127
- Argentina 179, 181, 182, 183, 184,
186, 188
- ASEAN Highway Network (AHN) 78
- ASEAN power grid (AGP) 78
- Asia 16, 56, 70
- Asia Pacific Economic Co-operation
(APEC) 70, 71–74
- Asian Development Bank (ADB) 71,
76, 79, 83, 84, 85, 91–93, 99
- Asian Infrastructure Fund (AIF) 77,
92
- Asian Infrastructure Investment Bank
(AIIB) 94, 98–99
- Asian infrastructure system (AIS)
70–100, 205
 - APEC connectivity agenda 71–74
 - Association of South East Asian
Nations 75–79
 - China's role in 70, 93–100
 - from sub-regional to pan-regional
90–93
 - Gulf Co-operation Council 86–90
 - South Asian Association for
Regional Cooperation 80–85

- aspirant territoriality 31, 32–37, 48, 50, 52, 53, 203
- assessment of TENs projects 40
- Association of South East Asian Nations (ASEAN) 70, 72, 75–79, 92, 93, 95, 98, 206
- austerity 39, 41, 48, 49
- Austria 43
- aviation sector
the Americas 175–176, 179
Asia 83, 87, 88
Europe 40
- Azerbaijan 60
- ‘backhaul’ problem 173
- Badenoch, A. 52
- Badie, B. 34
- Bahamas 174, 176, 190
- Bahrain 86, 87, 88, 89
- Balkan states 32, 51, 61
- Baltic states 32, 46, 47
- Bangladesh 81, 82, 84, 85, 93, 96, 97
- Barbados 174, 190
- Bartolini, S. 34
- Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation 85, 93
- Behar, A. 136
- Belarus 56, 61, 96
- Belgium 43, 56
- Belize 172, 174, 176
- benchmarking methods
for NIS 204–205
see also individual national infrastructure systems
- Benelux states 51, 53
- Benin 118, 122, 138, 139, 141
- Beyond the Border 163–164
- Bhagwati, J. 13
- Bhattacharyya, A. 81
- Bhutan 81, 82, 83, 84, 85
- Bialasiewicz, L. 35
- bilateral agreements/deals 22, 202
Africa 146, 149
the Americas 158, 164, 166, 176, 182, 183, 190, 207
Asia 84
bilateral infrastructure integration (EU) 39, 52–54
biomass 139
blackouts 51, 170
Blank, S. 159
Boedeltje, F. 34
Bofinger, H. 111
Bolivia 179, 181, 182, 183, 186, 188, 189
border-crossing times, Africa 132, 133
border/gateway infrastructures 11, 12
Africa 112, 130, 131
the Americas 11, 159, 160–164, 168, 169, 187, 203–204
Botswana 118, 132, 137, 138
Bouzarovski, S. 55
Bowker, G. 4
Brazil 177, 179, 180, 182, 183, 184, 187, 188, 191, 192
Brenner, N. 6, 18, 202
broadband 42, 44, 73, 77, 143, 144, 145, 146
Brunei 75, 76
Bulgaria 32
Burkina Faso 118, 123, 137, 139
Burundi 118, 122, 130, 137, 138
business interests 15

Calderón, C. 109, 113
Cambodia 72, 75, 76, 78, 79, 96, 100
Cameroon/Douala 118, 123, 139, 141, 145
Canada 157, 158, 160, 163–164, 166, 167, 168, 170–171, 190, 206
Caribbean Community (CARICOM) 157, 171–177, 190, 192
cascade effects 44, 51, 207
Central African Republic 118, 123, 130, 137, 139, 145
Central American Integration System 157
Central Bi-Oceanic Railway 192
central and eastern Europe 16, 32, 40, 46, 57, 59, 60, 61
Chad 118, 123, 128, 130, 137, 139, 145, 147
Chakraborty, D. 81

- cheap loans 147
- Chile 177, 178, 179, 182, 183, 184, 186, 187, 188, 189
- China 110
 and the African infrastructure system 115, 116, 124, 130, 131, 146–148, 210
 and the America's infrastructure system 189–192
 and the Asian infrastructure system 70, 93–100
 electricity co-operation 79
 EU integration as counterweight to hegemonic power of 13
 as a force for integration 209
 investment in Piraeus 62
 national infrastructure system 76, 178
- China Development Bank 98
- Christopherson Group Report (1996) 40
- civil wars 109, 111
- co-operation 19, 20
 the Americas 164, 170–171, 181, 185, 191, 192–193
 Asia 75, 78–79, 84, 85, 93, 94
 Europe 42, 51, 52, 60
 regionalism and 16, 17
- co-operative forums 73, 91
- co-ordination 20, 203, 204
 Africa 119
 Asia 92
 Europe 37, 38, 50, 51, 52, 57, 58, 61
 UNASUR states 181, 185
- coastal countries
 African 136
see also Caribbean Community
- cohesion 3, 6, 10, 12, 35, 36, 39, 88, 125, 209
- Cohesion Fund 48, 49
- Cold War 16
- collaboration 13, 52–53
- collective power 13, 14
- Collier, P. 137
- Colombia 179, 183, 184, 188
- colonial infrastructure 94, 109–110, 111, 128, 208
- colonial power(s) 117, 120, 208
- Commission of the European Communities (CEC) 33, 39, 46, 48, 49, 50, 58, 60
- Committee on Foreign Investment 190
- commodity cycle 148
- commodity-driven investment 191
- Common Economic Maritime Zone of Africa (CEMZA) 135
- Common Market for East and Southern Africa (COMESA) 118, 119, 120, 122, 123, 124, 127, 138
- common standards 38, 44, 133
- Common Transport Policy 38, 39
- community of practice 4
- Community of Sahel-Saharan States (CEN-SAD) 118, 120, 122, 123, 127
- competition 14, 16, 80, 89–90, 99, 119, 175
- competition state(s) 12, 13, 19, 74, 115, 201, 205, 208
- competitiveness 14, 15, 36, 91, 143
- complexity catastrophe 7
- 'comprehensive' network, EU corridors 42
- concessional loans 192
- Congo 118, 122, 123, 130, 136, 138, 140, 141, 142, 146
- Connecting Europe Facility (CEF) 48
- contagion effects 16
- container infrastructure 124, 134, 135, 173, 175, 181
- control 204
 infrastructuring and 5, 8–10, 18, 20, 44–45, 54, 57, 95, 115, 160
 of resources, Africa 111
see also price controls; territorial control
- 'core' network, EU corridors 42
- corruption 100, 111
- COSIPLAN 181, 185–189
- costs
 EU 'core' network 42
 infrastructural link, SAARC and ASEAN 93
 of a pan-African rail system 129

- procuring energy, Africa 140
- of the TAH 126
- TENS-E 46
- see also* trade costs; transaction costs; transit costs; transport costs
- Côte d'Ivoire/Abidjan 118, 122, 123, 134, 138, 139
- critical infrastructure 9
 - Africa 116
 - Europe 50–52, 56, 204
 - United States 11, 190
- cross-border infrastructure *see* border/gateway infrastructures
- cross-border trade/flows 22
 - Africa 120, 126, 142, 143
 - Europe 38
 - NAFTA 160, 161, 162, 166, 167, 170, 171
- crude oil 55, 85, 166, 167, 168, 169
- Customs and Border Protection (US) 162
- cyber systems 3–4, 116
- Czech Republic 32, 56

- data protection 44
- De, P. 85
- debt/debt relief 148
- degeneration of infrastructure 7
- detritorialisation 20, 36, 116
- Detroit-Windsor border crossing 163
- development agencies 21, 208
- development divide (ASEAN) 75, 76
- Digital Agenda for Europe (DAE) 44
- Djankov, S. 94
- Djibouti 97, 118, 130, 134, 146
- Doha 88
- domestic energy strategy, NAFTA states 166
- Dominican Republic 176
- Dubai 88, 89
- Dülffer, J. 53
- dynamics
 - infrastructural 3, 6
 - of regionalism 16–17

- Ease of Doing Business Index 85, 114
- East African Community (EAC) 118, 119, 120, 122, 123, 124, 127, 128, 131, 133, 138, 139, 146
- East African Trade and Transport Facilitation Project 133
- Economic Community of Central African States (ECCAS) 118, 120, 123, 127
- Economic Community of West African States (ECOWAS) 118, 120, 122, 123, 127, 146
- economic geography 12, 112
- economic infrastructures 2, 147
- economic integration 13, 21, 22, 23, 205
 - Africa 117–124, 137
 - the Americas 177, 189
 - Asia 70, 72, 75, 80, 86, 90
 - Europe 31, 33
- economic interactions 19, 82
- economies of scale 14, 15, 16, 74, 111, 112, 129, 201
- Ecuador 179, 188
- Egypt 61, 97, 118, 123, 124, 134, 142, 147
- Electricity and natural gas
 - transmission infrastructures in the community (CEC) 45–46
- electricity sector
 - Africa 113–114, 121, 122, 123, 140–141, 141–142, 147
 - the Americas 166, 170–171, 179, 182, 184, 187–189, 191, 210
 - Asia 78–79, 84, 88, 90
 - Europe 45–46, 47, 51, 52
- embeddedness 2, 3, 4, 5, 15
- empowerment 4
- Enabling Trade Index 132
- Energy Charter Treaty 58, 60
- energy corridors
 - Africa 123
 - Asia 79
 - Europe 46, 47, 56, 57
 - OBOR program 96
- energy demand 55, 90, 140, 166, 171, 183, 184

- energy exports 86, 114, 139, 166, 167, 168, 169, 172, 183
- energy imports 55, 147, 166, 167, 183
- Energy Information Agency 169
- energy infrastructure
- Africa 113–114, 121, 122, 123, 139–143, 207
 - the Americas 166–171, 178–179, 182–184, 187–188
 - Asia 78–79, 83, 84–85, 90, 93
 - Europe 51, 52
- energy integration 206
- Africa 140, 141
 - the Americas 170
 - Europe 46
 - resistance to 207
 - UNASUR 182, 183–184, 187–189
- energy PENs (E-PENS) 55–60
- energy poverty 114
- energy security 45, 55, 57, 58, 90, 94, 97, 98, 141, 142, 183, 207
- Energy TENs (TENS-E) 45–47
- Eritrea 118, 134
- Estache, A. 86
- Estonia 32, 43, 47
- Ethiopia 118, 130, 137, 138, 140, 141, 142, 146
- Etihad line 88–89
- Eurasian Economic Union (EAEU) 70, 98
- European Bank for Reconstruction and Development 99
- European Fund for Strategic Investment 49
- European infrastructure system (EIS) 31–62, 205, 206
- aspirant territoriality 32–37
 - bilateral integration 52–54
 - coordination of critical infrastructure 50–52, 204
 - pan-European network 54–62
 - policy debates 32–33
 - trans-European network initiative 37–50
- European integration 13–14, 16, 31, 33, 53, 54, 55, 62
- European Investment Bank (EIB) 33, 38, 48, 49
- European Union
- aspirant territoriality 31, 32–37, 48, 50, 52, 53, 203
 - energy relations, Russia 59
 - hydrocarbon deficit (2015) 55
 - infrastructure failure 207
 - see also individual countries*
- Europe–Asia Transport Links 61–62
- Exel, J. van 40
- Export Import Bank of China 98
- external trade 119, 172, 180
- extra-territoriality 13, 18, 20, 22, 93, 94–95, 98, 146, 208, 209
- failure *see* infrastructural failure; market failure; state failure
- Fickers, A. 52
- financial institutions 92, 94, 98, 115, 191–192
- Finland 32, 43
- foreign direct investment (FDI) 148, 185, 191, 208
- foreign policy (Chinese) 99, 147
- formal control 9
- formal integration 22, 23, 38, 53, 71, 72, 202, 205, 206
- formal regionalism 23
- Foucaultian perspective 12
- fragmentation
- industrial structures 14
 - see also* infrastructural fragmentation; territorial fragmentation
- France 43, 47, 51, 159
- free information flows 44
- free trade 54, 119, 205
- free trade areas 60, 72, 80, 92, 138, 144
- see also* North American Free Trade Area
- functional complexity 3–4
- Gallagher, K. 191
- Gallup, J. 136
- Gambia 118, 122
- gas sector *see* oil and gas sector

- gateways *see* border/gateway infrastructures
- Gazprom 57, 59
- geography 16, 35, 115, 135
- geopolitics 51, 58, 59, 80, 99–100, 117, 177, 189
- geostrategy 54, 99, 177, 191, 201, 209
- geothermal resources 139
- Germany 43, 49, 56, 59, 60, 96
- Ghana 118, 122, 138, 139, 141
- Glassman, J. 19
- global hub ports 174
- global positioning 12, 15, 16, 117, 136, 185, 201, 205
- Goldthau, A. 57
- governance
 EU-level 52
 limiting of African soft infrastructure 133
 of OBOR projects 100
 regionalism as a tool of 15
- Graham, S. 6, 11
- Great Uhuru Railway 113, 130, 131
- Greater Mekong region 79
- Greece 32, 51, 97
- greenfield investment 49, 99
- gross domestic product (GDP) 77, 80, 86, 109, 175, 179
- Group of Experts (EU) 41, 50
- growth/development 12–13, 204, 205–206
 Africa 115, 119, 125, 147, 148–149
 the Americas 158, 177
 Asia 70, 74
 Europe 36
 and investment 208–209
- Guinea 122, 139, 141
- Guinea Bissau 118, 122
- Gulf Co-operation Council (GCC) 70, 86–90, 97, 98, 100, 205, 206
- Gupta, G. 137
- Guyana 172, 174, 177, 179, 188
- Haiti 173, 174
- Hämmerli, B. 51
- hard infrastructure 2
 Africa 112, 114, 120, 124, 144
 the Americas 163, 173
 Asia 77, 88, 92
 Europe 60
- hard territoriality 35, 37
- hegemonic power 14, 17
- hegemonic pressures 22–23
- hegemonic-driven strategies 208–210
- Herbst, J. 116
- Hettne, B. 15, 17, 19
- hidden integration 52, 54, 55
- high speed rail 40, 62, 96, 100, 131, 146, 209, 210
- Hommels, A. 52
- Hong Kong 78, 96
- Houtum, H. van 34, 35
- Howe, C. 6
- Huawei 190
- hub and spoke infrastructure 97–98, 131, 175, 176
- Hughes, T. 3
- Hugill, P. 5
- Hungary 43, 56
- hydro power
 Africa 122, 123, 140, 141, 142, 147
 the Americas 170, 182, 184, 189, 191, 210
- hyper-connectivity 100
- hyper-regionalism 17
- Iceland 32
- 'ideology of circulation' 5
- illegal trade flows 11, 162, 163, 165
- implementation deficit 172
- import-substitution strategy 119
- India 80, 81, 82, 83, 84, 85, 92, 96, 100
- Indonesia 75, 76, 78, 97
- industrial structures, fragmentation 14
- informal control 9
- informal integration 22, 55, 202
- information and communication technology (ICT) 114, 116, 143, 145
- Information Development Indicators (ITU) 143
- information infrastructures 3–4
 Africa 113, 121, 122, 143–146

- the Americas 179, 190
- Europe 42–45
- infrastructural complexity 3–4, 5, 7, 11, 58, 207
- infrastructural failure 3, 7, 51, 207
- infrastructural fragmentation 10, 36, 52, 81–82, 111, 112, 130
- infrastructural ideal 10
- infrastructural investment
 - Africa 110, 111, 116–117, 120, 124, 133, 139, 142
 - the Americas 164, 178, 179–180, 187–189
 - Asia 76–77, 87–88, 89, 90, 91
 - Europe 33, 38–39, 44, 48–49, 209–210
 - and growth/development 12, 208–209
 - see also* China; foreign direct investment; private finance; required expenditure; state finance; underinvestment
- infrastructural mandate(s) 6, 8–13, 18, 19, 20, 21, 23
 - Africa 109, 115
 - Asia 71, 74
 - Europe 31, 36, 37, 38, 39, 44, 50, 58
 - regional infrastructure systems 204–208
 - see also* control; growth/development; integration; security
- infrastructural power 8, 9, 18, 116, 208
- infrastructural relations 4–5, 6, 9, 11, 18, 20, 33, 59, 202
- infrastructural violence 8, 9
- infrastructural warfare 11
- infrastructure(s) 1–5, 6–7
- Infrastructure Consortium for Africa (ICA) 112, 116, 121, 124
- Infrastructure Growth Strategy (2011) 36
- Infrastructure Project Preparation Facility 121
- ‘infrastructure for resource model’ *see* Angola mode
- Infrastructure for a seamless Asia* 91
- infrastructuring
 - national infrastructure systems 8–13
 - the regional imperative 17–23
 - state territoriality 5–7, 8, 23
 - supranational 31
- Initiative for the Integration of the Regional Infrastructure of South America (IIRSA) 181, 185, 192
- inland waterways
 - Africa 135–136
 - Europe 40, 42
 - SAARC states 83
 - UNASUR states 181, 186
- innovative financing 48, 50
- Institute of Chartered Accountants in England and Wales (ICAEW) 88
- institutional connectivity 73
- integrated maritime strategy (AU) 135
- integration 10, 19, 202, 204
 - cascade effects 51, 207
 - and competitiveness 14
 - and erosion of gateways 160
 - resistance to 203–204, 207
 - see also individual regions*
- interconnection 1, 2, 7, 21, 203, 204
 - see also individual regions*
- interdependence 3–4, 166
- Intergovernmental Authority of Development (IGAD) 118, 120, 123, 127
- intergovernmentalism 13, 16, 17, 19, 20, 52–53, 73, 75, 185, 203, 206
- Intermodal Surface Transportation Efficiency Act 1991 (US) 164–165
- internal conflict, Africa 109, 128
- Internal Energy Market (IEM) 55, 57, 58
- International Energy Agency (IEA) 55, 78, 90, 113–114, 139, 140
- international political economy 1, 20
- International Telecommunications Union (ITU) 143, 144
- international treaties, and EU territoriality 35
- internet 44
- interoperability 1, 21

- Africa 110, 133
- the Americas 162, 166, 173
- Europe 38, 42, 44, 47, 53, 54
- interstate agreements 13, 53, 184, 202
- see also* bilateral agreements/deals
- Interstate Natural Gas Association of America 169
- intra-regional trade
 - Africa 111, 119, 120, 131–132, 140, 142
 - the Americas 158, 160, 172, 173, 178
 - Asia 75, 80, 81, 86, 89, 92
 - Europe 33–34
- investment
 - in economies, Africa 119
 - see also* infrastructural investment
- Investment Growth Strategy 36
- ‘inward-looking’ strategy 117
- Ireland (Republic of) 32, 53
- Islamic Development Bank 76
- island economies
 - African 114
 - see also* Caribbean Community
- Italy 43, 56
- Jamaica 173, 174, 176, 190
- Japan 76, 99
- Japanese Bank for International Co-operation 92
- Johnson, D. 7, 8, 37, 53, 204
- Jouanjean, M.-A. 113, 132
- Kaijser, A. 52, 53
- Kandiyoti, R. 59
- Kashmir 96, 100
- Keating, M. 18
- Kenya/Mombasa 97, 112, 118, 122, 124, 130, 132, 134, 136, 138, 139, 141, 146
- Khanna, P. 94
- Konoplyanik, A. 58
- Korean Import-Export Bank 92
- KPMG 140, 142
- Kuwait 86, 87, 88, 89
- La Porte, T. 2
- Lagendijk, V. 52
- land bridge infrastructure 88, 92, 93, 96
- landlocked states 207
 - African 108, 110, 114, 117, 121, 124, 125, 127, 132, 134–139
 - Asian 73, 74, 81, 82, 83, 84, 85, 91, 93, 94
 - South American 181
- Laos 72, 75, 76, 78, 79, 96
- Latin America 32, 180
- Latin American Integration Agreement (LAIA) 177
- Lesotho 118, 137
- Libya 118, 123, 130, 141
- Liner Shipping Connectivity Index (LSCI) 130, 134, 174, 181
- liquefied natural gas (LNG) 46, 56, 57, 59, 85, 167, 169, 183
- logical interdependence 4
- logistics, GCC states 87
- Logistics Performance Index
 - Africa 112, 132, 137
 - the Americas 158, 179
 - Asia 82, 88, 89
 - Europe 32
- ‘Look East’ policy 81, 92
- low income states 112, 113
- Lowe, M. 129
- Maastricht Treaty 34, 36
- Maghreb 134
- Malawi 118, 122, 137, 138
- Malaysia 76, 78, 97, 178
- Maldives 82
- Mali 118, 122, 130, 137, 139
- Mamadouh, V. 35
- Mann, M. 5, 8, 18
- maquiladores 160
- maritime infrastructure
 - Africa 111, 122, 127, 134–139, 145, 146
 - the Americas 173–175, 179, 180–181, 187, 190
 - Asia 78, 83, 87–88, 93, 94, 96, 98
 - Europe 40, 42, 61–62, 209–210

- maritime Silk Road 95, 97
 market access 55, 182, 201
 market failure 6, 39
 market-driven infrastructure 10, 22,
 39, 41, 147, 202
 market-driven integration 76
 Martinique 176
 Marvin, S. 6
 masterplan (ASEAN, 2025) 76, 77
 Mauritius 112, 114, 118, 132, 143
 Mercosur (Southern Common Market)
 177, 182, 184, 186, 187
 meta-geography 35
 Mexico 11, 157, 158–159, 160, 161,
 162, 163, 166, 167, 168, 169,
 171, 190
 Middle East 56, 57, 61, 86, 96, 97,
 147
 middle income states 112, 113, 178
 Milner, H. 161
 Miner, S. 94
 mobility 38, 39, 45, 60, 61, 73, 76,
 81, 203
 Modernisation Agenda 2063 (AU) 131
 monopoly control 110
 Morocco/Tangiers 51, 56, 118, 123,
 134, 135
 ‘motorways of the seas’ 42, 61
 Mozambique 118, 138, 141, 142
 multilateral agreements 16, 23, 202
 multilateral development banks
 (MDBs) 76, 92, 98, 109
 see also individual banks
 multimodal infrastructure
 Africa 138, 139
 the Americas 187
 Europe 40, 41–42, 43
 multispeed Europe 35
 multistate corridors 93
 Murphy, A. 20, 35
 Myanmar 72, 75, 76, 78, 79, 83, 84,
 85, 92, 93, 96, 97, 100

 Namibia 118, 130, 131, 138
 narratives of infrastructure 5, 7, 11,
 12
 Africa 109, 115, 143
 the Americas 162, 165, 204
 Asia 71, 82, 87, 91
 national energy champions 57
 national infrastructure systems (NIS)
 adaptation/adaptive tension 7, 18,
 19, 21–23, 23–24
 Africa 108, 110, 112, 137
 the Americas 158, 159, 160, 173,
 178, 179
 Asia 74, 75, 76, 81, 82, 86, 87
 China 95
 complexity and challenges for 7–8
 Europe 32
 infrastructural mandate 8–13
 and regional infrastructural systems
 1, 20, 202
 regionalism and 18, 21–23
 nationalism 17, 183, 189
 natural monopoly 3
 Naudé, W. 136
 Neighbourhood Policy 60
 neo-colonialism 148
 neo-functional ‘spillover’ 16
 neo-liberalism 9, 15, 16, 54, 71,
 118–119, 148, 189, 205
 neo-mercantilism 15
 neo-Weberian state 8, 19
 Nepal 81, 82, 83, 84, 85
 Netherlands 43, 96
 network effects 3, 4
 Network Readiness Index (NRI) 143
 network relations 18
 networked infrastructures 2–3
 Neuman, M. 4
 New Development Bank 98
 New Partnership for Africa’s
 Development 116, 121
 new regionalism 15, 17, 19, 22, 172
 Niger 118, 122, 125, 130, 137, 139,
 141, 147
 Nigeria 110, 118, 122, 134, 138, 141,
 147
 Nijkamp, P. 173
 nodes, failing 7
 Nord Stream 58, 59, 60
 North Africa 61
 see also individual countries

- North American Electric Reliability Corporation 166
- North American Free Trade Area (NAFTA) 157–171, 190, 192, 206, 207
- North American Inland Ports Network 165
- North American Super Corridor Coalition 165
- Northern Ireland 53
- Norway 32, 56, 61
- Nye, J. 19
- obsolescence 7, 33, 178
- oil and gas sector
- Africa 122, 139–140, 141
 - the Americas 166–167, 168–169, 172, 182–183
 - Asia 78, 84, 85, 97
 - Europe 46, 47, 51, 56, 57, 58–59
- old regionalism 15, 19
- Oman 86, 87, 88, 89, 135
- ‘One Belt, One Road’ (OBOR) initiative 60, 62, 93–100, 146, 147, 191, 209, 210
- ‘one-stop’ border posts 133
- O’Neill, B. 9
- open and competitive markets 38
- opportunism 16, 209
- Organisation for Economic Co-operation and Development (OECD) 33, 126, 132, 180
- ownership of infrastructure 9, 57, 190
- Painter, J. 18
- Pakistan 80, 81, 82, 84, 85, 96, 97, 100
- Palan, R. 13, 15, 201
- pan-African regionalism 108
- pan-American highway 157
- pan-Asian regional infrastructure 90–100
- pan-European networks (PENs) 45, 53, 54–62
- paradoxes of infrastructure 6–7
- Paraguay 179, 181, 183, 184, 186, 188
- Parfomak, P. 168
- patch-and-mend strategy 129–130
- path dependencies 7, 59, 175
- people-to-people connectivity 73, 75–76, 81
- peripherality 22, 41, 95, 134, 136, 147, 172, 173, 175, 181, 192, 201, 207
- Peru 179, 182, 183, 186, 188, 192
- Philippines 75, 76
- physical connectivity 73
- physical interdependence 3
- pipeline systems
- Africa 141
 - the Americas 168–169, 182–183
 - Asia 84
 - Europe 56, 58–59
- Piraeus 62
- Poland 32, 43, 51, 56, 59, 96
- policies
- infrastructural, UNASUR states 185–189
 - regionalism as a set of 15 and territorial integration 10
- political economy 1, 16, 20, 112, 161
- political integration 15, 31, 33, 131
- polycentric systems 9, 11
- population densities 93, 110–111, 125, 129
- port infrastructure
- Africa 111, 122, 134, 135
 - the Americas 173–175, 179, 180–181
 - Asia 78, 87–88, 93, 95, 97, 98
 - Europe 61–62, 209–210
- Port of Laredo 161
- Porter, M. 14
- Portugal 32, 51
- post-colonialism 110, 117, 208
- power
- of business interests 15
 - see also* colonial power(s); empowerment; soft power; state power
- power asymmetries 10
- price controls, African public transport 111
- Priemus, H. 42

- private finance
 Africa 116, 117, 148
 Asia 73, 84
 Europe 39, 41, 44, 48–49, 53
- pro-activism
 Africa 124, 131, 144, 145
 the Americas 191, 203
 Asia 81, 83, 84, 91, 93
 Chinese 62, 70, 91
 Europe 44, 48
 of regional development banks 202
- Programme for Infrastructure
 Development in Africa (PIDA)
 116, 121, 125, 145
- Project Bond programme 49
- protectionism 16, 80, 206
- proximity syndrome 136
- public good(s) 10, 22, 73, 74, 121
- public-private partnerships 138, 186
- Puerto Rico 176
- Qatar 56, 86, 87, 88, 89, 100
- rail infrastructure
 Africa 111, 113, 122, 123, 127,
 128–131, 146, 147
 the Americas 159, 160, 165, 179,
 180, 187, 192
 Asia 78, 82, 83, 88–89, 93, 96, 100
 Europe 40, 42, 53, 61
- Raineri, R. 189
- Ratner, M. 168
- realism 14–15, 20
- refined petroleum 166, 167, 169
- reform, investment without
 conditional 148
- regional agreements 16, 157
- regional development banks 202–203
- regional economic communities
 (RECs) 111, 116, 117–118, 123,
 127–128, 133, 138, 144, 145,
 146
see also individual communities
- regional hubs, UNASUR 185–186
- regional infrastructure systems
 composite nature of 1
 emergence of 1, 13, 18, 19, 20
 infrastructural mandate 204–208
 as a network of national
 infrastructure systems 20
 the state and 201–204
 two main forms 21
- regional institutions 15, 16, 53
- Regional Multimodal Transport Study
 (SAARC) 83
- regional power pools 141, 142
- regionalism
 Africa 108, 148
 Asia 72
 and infrastructuring 17–23, 24
 rise of 1, 13–17, 201
- regulation 6, 8, 9, 133
- regulatory reform 119, 143
- Renda, A. 51
- required expenditure
 Africa 116, 140
 the Americas 162, 180
 Asia 71, 76, 78, 86, 93
 Europe 33
- resilience of infrastructure 51, 52, 171
- resistance to integration 55, 203–204,
 207
- resource-focused infrastructure
 146–147, 148, 192
- resource nationalism 183, 189
- responsibility 9, 54
- reterritorialisation 20, 36
- Rinaldi, S. 3
- risk(s) 7, 50, 51, 84, 133, 183, 207
- risk-averse climate 49
- road infrastructure
 Africa 113, 122, 123, 125–128,
 129, 133, 147
 the Americas 157, 158–159, 160,
 165, 179, 180, 185, 187
 Asia 78, 81–82, 83, 96
 Europe 42, 61
- Rodgers, D. 9
- Romania 32
- Romanova, T. 60
- ‘run to the Pacific’ 187
- rural population, Africa 114, 125
- Russia 51, 55, 56, 57, 58, 59, 60, 61,
 96, 97

- Rwanda 110, 118, 122, 125, 130, 132, 137, 138, 143, 146
- Sassen, S. 18
- Saudi Arabia 86, 87, 88, 89, 167
- scaling up 36, 45, 117, 119, 141–142
- Schipper, F. 54
- Scott, J. 35
- sea-locked states 172, 207
- secretariats (REC) 133
- security 6, 9, 11–12, 52, 54, 75, 175, 185, 204, 206, 208
see also energy security
- self-interest 17, 53, 147
- self-sufficiency 52
- Senegal 118, 122, 128, 130, 139
- senescence 7, 33, 178
- Serven, L. 113
- services, liberalisation of 38
- shale energy 168, 169, 183
- shared responsibility 54
- Sichelschmidt, H. 40
- Silk Road economic belt (SREB) 95
- Silk Road Fund 98
- Simuyemba, S. 110
- Singapore 75, 76, 78, 100
- Singapore–Kunming rail link (SKRL) 78
- Single European Market (SEM) 35, 37, 38, 39–40
- Sitter, N. 57
- Slovak Republic 32, 43, 56
- small island developing states (SIDS) 172
- small-sized states/economies, Africa 110, 117, 120–121, 207
- social solidarity 10
- socio-economic systems 2, 5, 7
- Söderbaum, F. 19
- soft infrastructure 2, 4, 7, 21, 23
 Africa 110, 112, 114, 120, 124, 131–133, 135, 144, 147
 the Americas 163, 165, 173, 185
 Asia 73, 74, 77, 85, 88, 92
 Europe 37, 38, 46, 49, 50, 58, 60, 61, 62, 206
- soft power 59
- Somalia 112, 118
- South Africa/Durban 118, 128–129, 134, 135, 138, 139, 142–143, 146
- South American Energy Council 189
- South Asia 125
- South Asia Sub-regional Economic Cooperation 93
- South Asian Association for Regional Co-operation (SAARC) 70, 80–85, 92, 93, 98
- South Asian Economic Co-operation 85
- South Korea 76, 110, 178
- South Stream pipeline 57
- Southern African Development Community (SADC) 118, 119, 120, 122, 123, 124, 127, 131, 138, 143
- Southern Cone states 182
- southern and south-eastern Europe 32, 45, 57, 61
- sovereignty 8, 15, 19, 86, 177
- Soviet Union 32, 55, 60, 61
- Spain 43, 47, 51, 56, 113, 135
- spatial complexity 4
- spillovers 16, 23, 36, 98, 120, 187
- splintering 6, 10
- Sri Lanka 80, 81, 82, 84, 97, 100
- stability/instability 9, 11, 15, 22, 62, 95, 109, 116, 183
- standardised interfaces 5
- standards 21, 38, 44, 133
- Starr, S. 4
- state(s)
 animosity/suspicion between 111, 142, 181–182, 189
 control *see* control
 infrastructuring 4, 5–6
see also infrastructural mandate and regional infrastructure systems 1, 201–204
 and territoriality *see* territoriality
see also competition state(s); neo-Weberian state
- state enterprises, Africa 111
- state failure 8, 109, 115, 142
- state finance 9, 203

- Africa 116–117, 138, 149
- the Americas 178
- Asia 88, 89
- Europe 41, 48
- state monopolies 53–54
- state power 8, 13–14, 15, 17–18, 57, 59, 163
 - see also* infrastructural power
- state primacy 1, 16, 18, 20, 23
- state restructuring 15
- state-level institutional barriers 159
- strategic influence 94
- strategies (state) 5–6, 9, 13, 14, 23, 84, 172, 177
- ‘strings of pearl’ policy 95–96, 209
- structured projects (COSIPLAN) 187
- sub-regional hub ports 174
- Sub-Saharan Africa 112, 113, 114, 116, 129, 132, 134, 135, 139, 140
 - see also individual states*
- submarine cable system (Africa) 144, 145
- subsidiarity 49, 51
- Sudan 97, 118, 123, 125, 130, 138, 142, 146, 147
- sunk investments/costs 59, 121
- super-highway, NAFTA 165, 206
- supplier states 57–58
- supranational institutions 17, 20, 36, 37, 62, 203
- supranationalism 31, 36, 206
- suprastructures 11, 163
- Suriname 172, 177, 179, 188
- Swaziland 118, 137
- Sweden 43
- Switzerland 32, 43, 61
- systemic nature, of infrastructures 2–4
- Tanzania/Dar es Salaam 97, 118, 122, 124, 130, 131, 134, 138, 139, 141, 146
- Taylor, A. 115
- Taylor, P. 17
- TAZARA 131
- Te Velde, D.W. 132
- technical issues, limiting of African soft infrastructure 133
- telecommunications 113, 144, 145, 179
- Telecommunications TENs (TENs-Telecom) 42–45, 48
- terrestrial information networks, Africa 144, 145
- territorial control 6, 9, 20, 208
- territorial exclusions 35
- territorial fragmentation 110
- territorial integration 10, 95, 115
- territorial integrity 82
- territoriality 13, 202
 - border infrastructures and 11
 - conventional analyses 18–19
 - E-PENS and shifting 55
 - infrastructuring and 5–7, 8, 23, 178
 - post-colonial 110
 - regionalism and 17
 - RIS and 1, 203
 - security and 11
 - the state as unit of 18
 - see also* aspirant territoriality; extra-territoriality
- territory 18
- Thailand 75, 76, 78, 79, 96, 100
- Third Energy Package 57
- threats 10, 11–12, 51, 58
- Three Gorges Group 191
- ‘tightly-coupled’ infrastructures 2–3
- Togo 122, 138, 139, 141
- trade costs 38, 73, 124, 131–132, 136, 165
- trade deficits, CARICOM states 173
- trade enablement 71, 132
- trade facilitation 21, 205
 - Africa 131–132, 133, 139, 144
 - Asia 72, 73, 81, 85, 88, 95
- trade flows
 - trade facilitation and 132
 - see also* cross-border trade/flows; intra-regional trade
- trade liberalisation 72, 80, 157, 166
- trade theory 16

- Trans-African Highway (TAH) 125–128
- trans-African rail systems 128–131
- Trans-African Railway (TAR) 131
- trans-ASEAN gas pipeline (TAGP) 78
- trans-European networks (TENs) 31, 37–50, 53, 62, 203, 206
- trans-national flows 21, 53
- trans-regionalism 17, 208–210
- trans-shipment/relay ports (CARICOM) 173, 175
- transaction costs 11, 12, 15, 54, 73, 115, 119, 120, 158, 162, 165
- transformative capacity, infrastructures 4
- transit costs, Africa 136, 137
- transit disputes (Russia/Ukraine) 51, 55
- transit states 57, 58, 59, 136
- transport corridors
Africa 122, 123, 124, 125, 126, 130, 137–139
Asia 83, 87, 92, 93, 95, 96, 100
Europe 41–42, 43, 60
NAFTA states 164–165
- transport costs 120, 124, 125, 173, 175, 180
- transport infrastructure
Africa 111, 113, 114, 121, 122, 123, 124–133, 146–147
the Americas 158–159, 160, 172–177, 178–179, 180–182, 185, 186, 187
Asia 78, 81–82, 83, 85, 88–89, 93, 98
Europe 38–39, 53
- Transport PENs (T-PENS) 54, 60–62
- Transport TENs (TENS-T) 39–42, 48, 49, 50
- Treaty on the Functioning of the European Union 36
- Trinidad and Tobago 172, 173, 174, 176, 190
- Tunis Declaration on E-Commerce 144
- Tunisia 118, 123, 141
- Turkey 56, 57, 61, 178
- Turkmenistan 60, 85
- Turner, C. 7, 8, 37, 53, 204
- Twenty-First Century Border Initiative 161, 162
- Twin Ocean Railroad 192
- Uganda 118, 123, 129, 130, 136, 137, 138, 141, 146
- Ukraine 51, 55, 56, 57, 58, 60, 61
- underinvestment 33, 36, 162, 204
- Union of South American Nations (UNASUR) 157, 177–189, 191, 192
- United Arab Emirates/Abu Dhabi 86, 87, 88, 89
- United Kingdom 49, 56
- United Nations Conference on Trade and Development (UNCTAD) 86, 130, 173
- United Nations Economic Commission for Africa (UNECA) 116, 117, 121, 122–123, 132, 136, 138
- United Nations Economic Commission for Europe (UNECE) 61
- United Nations Economic Commission on Latin American Countries (UNECLAC) 180, 191
- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) 74, 91
- United States
2016 campaign rhetoric, illegal flows 163
border infrastructure 11, 161, 162, 163–164, 203–204, 206
Chinese investment 190
energy sector 168, 170–171, 207
EU integration as counterweight to hegemonic power of 13
NAFTA trade 158, 160, 162, 167
national infrastructure system 158
position on regional integration 16
resistance to E-PENS 55
road infrastructure 159

- as signatory to NAFTA 157
- universal access 44, 115
- universal infrastructure 4
- Unwin, B. 40
- urban populations 110, 114, 180
- urbanisation, Africa 111, 145
- Uruguay 179, 182, 183, 184, 188
- users/usage of infrastructure 2, 3, 4, 6, 9, 10

- value chains 16, 18, 115, 119, 160
- Vanheukelom, J. 110
- Venables, A. 136
- Venezuela 179, 183, 188
- vested interests 133
- Vietnam 75, 76, 78, 79, 96
- Vitale, A. 34
- Vleuten, E. van der 5, 52, 53, 54
- vulnerability of infrastructure 11, 51, 52, 58, 139

- Walters, W. 54
- wasteful investment 111
- Weiss, L. 19
- welfare 6, 8, 10, 12, 115, 192
- 'whipsaw effect' 158

- White Paper on Growth Competitiveness and Employment (CEC) 40
- Wood, D. 166, 169
- World Bank 76, 92, 109, 121, 125, 129, 148
 - see also* Ease of Doing Business Index; Liner Shipping Connectivity Index; Logistic Performance Index
- World Economic Forum (WEF) 109, 114, 132, 133, 181
 - infrastructural rankings *see* national infrastructure systems
 - see also* Enabling Trade Index; Network Readiness Index

- XL pipeline 168–169

- Yang, Y. 137

- Zambia 118, 122, 123, 130, 131, 137, 138, 141
- Zimbabwe 113, 123, 137, 138, 146
- Zonneveld, W. 42
- ZTE 190

