

Index

- absorptive capacity, 173
- Alibaba, 231
- AMC (advance market commitment), 233
- Anglo-American economic systems, 19
- Anglo-American model, 21
- Aramco, 230
- Argentina, 28
- Asian
 - capitalism, 205
 - economies, 29, 36
 - tigers, 29, 32
- Asian financial crisis, 177
- asymmetric opening, 163
- authoritarian regime, 149
- authoritarianism, 164
- automotive industry
 - China, 86
 - Korea, 80
 - Malaysia, 84
 - Thailand, 82
- backward citation lag, 43
- backward linkages, 11, 65, 83
- Baidu, 231
- balanced development, 134
- Baldwin, 6
- berries, 58, 68
- big businesses, 4, 12, 47, 106, 146
- bio-similar, 242
- biotechnology, 199, 241
- Brazil, 28, 198
 - footwear sector in, 227
- BRICS, 32
- business groups, 176, 228
 - top 30, 179, 187
- BYD, 223
- capability failures, 208
- catching-up, 145
 - balanced, 15
 - economies, 26
 - imbalanced, 48
- market, 116
- mode of, 216, 218
- paradox, 5, 22, 114, 203
- path-following, 226
- technological, 115, 136
- CBUs (completely built units, namely fully assembled cars), 81, 82
- Celtrion, 199, 242
- chaebol, 183, 187
- Chery, 77, 223
- Chile, 9, 14, 67
- Chile–California Program, 68
- China, 12, 18, 29, 76
- Chinese Industrial Enterprises Database, 122
- ChiNext, 236
- Chosun Dynasty, 148
- CKD (complete knock down), 81, 82, 84, 90
- climate change, 253
- cluster analysis, 33
- coefficient of variation, 39
- coevolution, 7, 14, 18, 244
- colonial rule, 148
- comparative advantages, 22, 188, 243
- concentration
 - of economic power, 177
 - of innovation, 47
 - of NIS, 108, 187
- Confucianism, 148
- conglomerates, 180, 227
- convergence, 19, 109, 140, 205
- coordination failure, 208, 234
- copper, 70
- corporate innovation systems, 135
- COVID-19, 1, 243, 246
- creative destruction, 8, 192
- Creative-Lab (C-Lab), 239
- cycle time of technologies (CTT), 8, 27, 118, 146
 - of a firm, 136
 - long, 8, 44, 198, 241
 - short, 8, 21, 40, 44, 60, 118, 136, 192, 247

280 INDEX

- Daewoo, 80
- decentralization, 8, 48
- de-industrialization, 50
 - pre-mature, 11, 65
- democracy, 149, 203
- development detour
 - non-linear, 20
- development pathways, 3
- developmental state, 100
- digital platforms, 183
- digital switch, 112
- digital TV, 213
- discipline
 - from global markets, 85, 105
 - from markets, 163, 181
- diversification
 - diversification, 32
 - technological, 8, 16, 27, 44, 133, 135
- domestic value-added, 17, 20, 58
- DRAM, 212
- drugs, 16
- dual price policy, 155
- economic complexity, 5
- electric and electronics (E&E), 71
- Electronics and Telecommunications
 - Research Institute, 43
- emerging economies, 40, 92
- enrollment in secondary education, 156
- entrepreneurial states, 3
- entry barriers, 5, 13, 44, 146, 211
- entry control, 90, 161
- Ericsson, 112
- Ethiopian Air, 230
- European
 - economies, 30, 36
 - Northern, 36
 - peripheral, 49
 - Southern, 32
- excessive investments, 179
- export
 - competition, 10
 - duty, 75
 - growth, 166
 - orientation, 17, 21, 182
 - performance, 15, 56
 - promotion, 146
- fast follower, 100, 214
- FDI, 3, 10, 64, 78, 181
- financial control, 159
- financial restraints, 160
- firm values, 140
- firms
 - catching up, 135
 - domestically owned, 216
 - in emerging economies, 120
 - indigenous, 89
 - Korean, 135, 137
 - mature, 143
 - US, 136
- flagship, 226
- food shortages, 152
- foreign value added (FVA), 83, 167
- forestry, 69
- Fortune Global 500, 230
- France, 33
- free-trade agreements, 20
- Fundación Chile (FCh), 67, 220
- Geely, 77, 85, 88
- Germany, 33
- getting prices wrong, 158
- global financial crisis, 20, 151
- Global Fortune 500, 12, 177
- global governance, 252
- global innovation systems, 10
- Global South, 56
- global value chains (GVCs), 6, 11, 20, 65, 83, 211, 225
 - disruption, 59
 - foreign-dominated, 74
 - indicators, 77
- globalization paradox, 2
- global–local interfaces, 3, 10, 23, 146, 244
- GM-Daewoo, 83
- government intervention, 22
- Greece, 30
- growth money, 160
- growth regressions, 42
- Hangul, 148
- Heckscher–Ohlin trade theory, 189
- high end, 89
- high-income economies, 28
- Hong Kong, 50
- hostile takeover, 74
- Hsinchu, 19
- Huawei, 102, 107, 112, 218

- human capital, 164
- Hyundai, 78, 85, 107, 111, 162, 201
- imbalanced development, 62
- IMF, 19, 150
- imitation, 107
 - to innovation, 89
- imitative creation, 95
- imitative innovation, 171
- import substitution, 166
- inclusive growth, 208
- incumbents, 141
- India, 15, 32, 39
- indigenous development, 102
- indigenous firms, 92
- industrial district, 126
 - Hub-and-Spoke, 126
 - Marshallian, 126
- industrial policy, 3, 11, 16, 43, 51, 70, 72, 73, 78, 79, 161, 207
 - in Korea, 158
 - Korean style, 87, 222
- Industrial Technology Research Institute (ITRI), 100, 128, 214
- inequality, 204
- Infosys, 54
- innovation systems, 7, 208, 248
 - corporate, 17, 19
 - firm-level, 135
 - corporate; regional, 106
- in-out-in again, 11, 64, 167
- institutions, 14, 18, 107, 118, 164
 - inclusive or exclusive, 146
- intellectual property rights, 5, 6, 22
 - disputes, 244, 250
- internationalization, 95
- inter-regionalization, 96
- intra-regionalization, 96
- Ireland, 25, 30, 50
- Israel, 30
- IT cluster, 103
- IT sector, 65
- IT services, 9, 16, 50, 52, 247
- Italy, 33
- ITRI, 229
- Japanese
 - carmakers, 82
 - investment, 81
 - manufacturers, 81
- JVs, 78, 80, 82
 - foreign, 81, 83, 86
 - strategy, 80
- Kakao, 232, 238
- knowledge
 - base, 135
 - codifiable, 172
 - external, 131
 - indigenous, 95
- knowledge localization, 8, 27, 32, 44
- knowledge spillover, 219
- Korea, xi
 - North, 164
 - South, 21
- Korea Development Bank, 160
- Korea New Exchange (KONEX), 236
- Korean model, 21, 146
 - as a miracle, 205
- KOSDAQ, 235
- land reforms, 252
- late entrants, 64
- latecomer
 - countries, 13
 - country, 145
 - disadvantages, 147, 158
 - economies, 64
 - firms, 18, 107, 110
 - industrialization, 158
- latent comparative advantages, 189
- Latin America, 29, 47
- leapfrogging, 5, 193, 241, 246, 251
- learning-by-doing, 180
- liberalization of trade and investment, 4
- liberalization trap, 11, 65, 248
- licensing
 - know-how, 173
 - technology, 172
- local content requirements (LCRs), 77–79, 85, 89, 224
- local embeddedness, 91
- local ownership, 70
- localization of knowledge, 95, 131
- London Stock Exchange, 74
- long jumps, 193
- low middle-income, 29
- low-income
 - stage, 22
- Lundvall, 8, 26

282 INDEX

- M&A
 - international, 88, 223
 - of Volvo, 89
- made in China, 83
- Malaysia, 9, 14, 30, 216
- manufacturing, 5, 51
 - IT, 71
- market competition, 79
- market economies
 - coordinated, 36
 - mixed, 36
- market failure, 13, 176, 208, 227, 233
- market for technology, 86, 221
- market forces, 73
- market structure, 78, 182, 211
- marketization index, 123
- Mauritius, 28
- Mazzucato, 3
- Mexico, 28
- middle class, 149
- middle-income trap (MIT), 6, 9, 15, 25, 55, 65, 71, 100, 151
 - escaping, 65
- mission-oriented innovation policy, 207
- Mitsubishi, 80, 81, 111
- MNCs, 93
- more is better, 24
- Motorola, 217
- multiplicity, 6
- mutual citations, 116
- national brand, 77
- national innovation systems, 7, 8, 26, 95
 - balanced, 16, 47
 - balanced mature, 33
 - catching-up, 8, 30, 40
 - imbalanced, 33
 - in Korea, 198
 - index, 27
 - mixed, 39
 - trapped, 7, 26, 30, 60
 - types, 27
 - varieties of, 39
- nationalization, 70
- Naver, 183, 238
- Nelson, 135
- Netherlands, 33
- niche, 138
 - strategy, 43
- non-linearity, 6, 210, 247
- OBM, 80
- openness to trade, 166
- original design manufacturer (ODM), 225
- original equipment manufacturing (OEM), 43, 80, 225
- originality, 8, 27, 135
- ownership, 78
 - diverse, 107, 120
 - domestic, 11, 16
 - firm, 16, 18
 - foreign, 80, 96, 201
 - of innovation, 102
 - knowledge, 95
 - local, 64, 70, 200
 - local firm, 98
 - majority, 81
 - of patents, 97
- palm oil, 15, 55, 72
 - processed, 58
- Park Chung Hee, xi, 149, 229
- patent rights, 6
- patents
 - citations, 110
 - locally-owned, 97
 - quality of, 110
 - US, 94
 - US-filed, 91
- pathway
 - alternative, 41, 106
 - multiple, 23
 - NIS, 62
 - non-linear, 61
- Penang, 16, 91, 216
- Penang Development Centre (PDC), 217
- Penang Skill Development Centre (PSDC), 217
- Petronas, 73, 230
- pharmaceuticals, 39, 54
- plantation, 74
- Plaza Accord, 81
- Pony, 162
- Portugal, 30
- POSCO, 171, 228
- privately-owned local enterprises (POLEs), 18, 121
- product life cycle, 195
- product space, 190
- productivity, 51
 - labor, 122

- Proton, 17, 77, 81, 84
 pure-play
 foundry, 129
- R&D, 59
 consortium, 100, 102, 168, 212, 219
 efforts, 75
 government-funded, 76
 incentives, 73
 in-house, 174, 214
 investment to GDP ratio, 165
 private, 215
 public-private, 214
 tax exemption for, 182
- regional innovation systems (RIS), 90, 126
 catching-up, 134
 mature, 143
 measures of, 96
 of Hsinchu, 127
 peripheral, 94, 131
- resiliency, 147
 re-skilling, 216
 resource-based sectors, 9, 56, 247
 resource-based view of firm
 growth, 120
- revealed comparative advantages
 (RCA), 56, 162
- reversal of fortune, 165
 reverse engineering, 112
- Rodrik, 2
- rubber, 15, 55, 72
 sector, 76
- Russia, 32, 49
- salmon, 15, 55, 67
- Samsung, 107, 110, 212, 239
 memory chip, 180
- Samsung Biologics, 199, 243
- Schumpeter, 12
- Schumpeterian, xii, 7, 26, 31, 90,
 176, 208
 theory of the firm, 119, 135
- secondary stock market, 235
- self-citations, 95, 113
 at the firm level, 136
- semiconductor, 72, 128, 215
- services, 51
- Shanghai Auto Industry Corporation
 (SAIC), 221
- Shanghai Bell, 102, 219
- Shenzhen, 16, 66, 91, 112, 200, 218
- Shenzhen Stock Exchange, 236
- Singapore, 25, 50
- SMEs, 12, 127, 183, 214
- SMIC, 237
- SOEs, 230
- soft budget constraints, 160
- Sony, 110
- sophistication
 trade structure, 190
- South Africa, 28
- Spain, 25
- special economic zones (SEZ), 92, 102
- specialization, 15, 43, 47, 58
 smart, 146
- spillover effect, 64
- startups, 13, 125, 232, 240
- State Grid Corporation, 230
- state-owned enterprises (SOEs), 18, 107
- structural transformation, 5, 188
- sustainability, 253
- sustainable development, 253
- Sweden, 33
- system failures, 208
- Taipei, 16, 91
- Taiwan, 11, 19
- Taiwan Semiconductor Manufacturing
 Company (TSMC), 229
- takeover, 230
- tariffs, 75, 84, 213
 asymmetric, 163
 effectiveness of, 161
- Tata, 54
- technological capabilities, 10, 79,
 110, 170
- technological development, 107
- technological diversification, 16
- technological independence, 116
- technologies
 long cycle, 6, 16, 53, 134, 195
 recent or old, 114
 short cycle, 6, 19, 240
 similar or different, 18, 106
- technology transfer, 250
- telephone switch, 219
- Tencent, 220
- Thailand, 12, 29, 76
- Time-Division Exchange (TDX), 168
- Tobin's Q, 140

284 INDEX

- total factor productivity (TFP), 162
- Toyota, 82
- trade openness, 56
- trade surplus, 56
- trademarks, 6
- trading market for technology, 102, 224
- trajectory
 - technological, 106
- transaction cost economics, 176
- trapped economies, 44
- TSMC, 19, 108

- UMC, 129
- unicorns, 227
- United Kingdom, 33
- university-industry linkages, 131
- upgrading, 104, 134

- upper middle-income
 - stages, 28
- utility models, 6

- varieties of capitalism (VoC), 27, 36
- venture companies, 235
- Volkswagen, 77

- Washington Consensus, xii, 2, 4, 156
- windows of opportunity, 242
- wine, 15, 55, 67, 69
- Wipro, 54
- World Bank, 25
- WTO, 66, 77, 85, 222, 224
 - China entry, 88

- ZTE, 102