Index

Aker Verdal 125–6
  practices of 130–31
  Valhall 125–7
Amazon.com 211
American Community Survey
  (2007–11) 188, 191
Apple, Inc. 71
Arcview GIS software 314
AssetAlternatives 72, 74
  Corporate Venturing Directory and
  Yearbook 71
Boston Consultancy Group (BCG)
  261, 267, 271
Bureau of Economic Analysis (BEA)
  216
business cycles 13, 163, 171, 251
  new firm formation in 172
  regional start-up rates of 178
Cambodia 267
Canada 125, 191
capital 117
  access to 187
  accumulation of 282
  creative 13
  financial 214, 220, 230
  flows of 3
  human 13, 141, 143, 150, 158, 213, 275, 294, 300
    role in long-run economic growth 210
    spillover 142
    stock 210
physical 274, 294, 300
social 311–12, 314, 325–6
  coefficients of 319, 323
  definitions of 319
  measures of 312–13, 319–20, 324
  negative 324
venture 214

Carnegie Mellon University 72
Caterpillar 275
China, People’s Republic of 2, 99, 191, 261, 267
  IPR laws in 268
  manufacturing sector of 269–70
CNRS 59
Colombia 191
Compustat 71–3, 75
Cox models
  covariates of 33
  hazard ratios of 35
  proportional hazard 30
Craigslist 211
creativity 141–3
  creative class 142–3, 155, 158–9
  filter 13
  influence of large urban spaces on
    5–6
  spillover 143, 158
    models of 147–50, 154–5
credit
  access to 187
Cuba 191
Decennial Census (2000) 188
Dell Computers 212
Denmark 188, 266
eBay 211
efficiency estimation 82
  formulation of 73
emerging economies 264, 266–8, 276
entrepreneurship 1, 4–5, 11, 13–14,
  21–3, 33, 141–2, 149, 169–70,
  180–81, 199–200, 210, 218, 220,
  237, 240, 243–6, 248–9, 252
creativity spillover of 143, 158
  models of 147–50, 154
culture 165, 168, 170, 179–80
**Innovation and entrepreneurship in the global economy**

- localized \(171\)
- regional \(163–70\)
- definitions of \(188–9\)
- high-tech \(13, 192–4, 197\)
- immigrant \(184–7, 194, 200, 203\)
- agglomeration patterns \(185\)
- enclaves \(201\)
- location choice \(187–91\)
- in cities \(141–2\)
- low barriers to entry \(144\)
- influence of large urban spaces on \(5–7\)
- international \(89\)
- knowledge spillovers of \(142–3, 244\)
- learning \(169\)
- overconfidence \(237–8, 240–43, 247–8, 251–2\)
- clustering bias \(250–51\)
- in networks \(247\)
- industrial level \(244–5\)
- social level \(245–6\)
- policies \(10\)
- regional \(13, 180\)
- role in long-run economic growth \(210\)
- role models \(169\)
- spatial clustering \(185–6\)
- entrepreneurship motor \(2\)
- European Community Innovation Surveys (CIS) \(49\)
- European Economic Area (EEA) \(149, 154\)
- European Patent Office (EPO) \(51\)
- PATSTAT database \(51\)
- European Union (EU) \(2, 28, 144, 155\)
- member states of \(22, 25, 49\)
- triadic protection in \(22\)
- European Urban Audit Surveys (UAS) \(145\)
- Eurostat
- local administrative unit (LAU) \(145, 149\)
- evolutionary economics
  - development of \(238–9\)
  - evolutionary theory \(240, 249–50\)
  - Darwinian \(238\)
  - influence of agents in \(239–40\)
  - role of routines in \(239\)
- FedEx \(212\)
- foreign direct investment (FDI) \(2, 8, 264–5\)
  - in manufacturing sector \(276\)
  - outward \(8\)
- Foxconn \(268\)
- France \(22, 24, 59\)
  - manufacturing sector of \(281\)
- Frontline Systems
  - Premium Solver \(73\)
- full-information maximum likelihood (FIML)
  - estimator \(291\)
- General Agreement on Tariffs and Trade (GATT) \(2\)
- General Electric \(261\)
- general purpose technologies (GPTs)
  - concept of \(211\)
  - ICT as \(211\)
  - generalized least squares (GLS)
    - estimation \(154\)
    - regression \(76\)
- Germany \(22, 59, 64, 191\)
  - Fall of Berlin Wall (1989) \(2\)
  - start-up rates in \(171\)
  - globalization \(1–4, 10–11\)
- Gómez Uranga, M. \(28, 38\)
- Google, Inc. \(211\)
- Heckman selection model \(291\)
- Herfindahl–Hirschman Index (HHI) \(193–4\)
- Honda Motor Co., Ltd \(268\)
- India \(99\)
- industrial agglomeration
  - as GPTs \(211\)
  - concept of \(185–6\)
  - information and communication technology (ICT) \(3, 118, 150, 154–5, 158, 211, 223, 251\)
  - manufacturing of products \(149\)
  - information/communication infrastructure \(210–11\)
  - infrastructure density (DINFRA) \(314–15, 319, 321, 323–4\)
  - infrastructure endowment \(310–11\)
  - output demand \(317–18\)
production outsourcing 310–11, 317, 325
domestic 311
full (FO) 313, 316, 321, 323–4
international 311
partial (PO) 313, 316, 321, 323–4
transport 310, 323–4
costs 312–13
innovation 1–2, 8, 95–6, 118, 211
collaboration 112
effect on productivity 284–5
flow of 89
influence of large urban spaces on 5–6
input 291–2, 296, 301
national systems of 22
organizational 3, 286
output 282, 285–6, 288–93, 296, 298, 301
process 133
production function 291, 294
radical 8–9, 96
relationship with routines 133–4
university collaboration 44
intellectual property rights (IPR) 261–2
disputes 72, 74, 77
leakage 269
legislation 268
international new ventures (INVs) 89, 91, 93, 95–6, 100, 102, 105, 107, 110–12
creation of firm-specific assets/resources for 92
development of 92–5, 105–6
network collaboration of 93–4
dynamic capabilities 97–8
enterprise group membership 97, 100
innovation collaboration of 112
inter-organizational collaboration of 90–92, 95–6, 111
internationalization of 97–8
management of 110–12
managerial practices of 90
New 94
Old 94
operationalization of 98
start-up 105–7, 110
variables in 99–100, 102, 105
binary 102
internationalization 89, 93
of firms 90–91
of INVs 97–8
speed of 90
Internet 3, 32, 189
broadband 13, 227, 230
access to 212, 215, 217–18, 223, 225, 230–32
adoption of 212
entrepreneurship opportunities offered by 211–12
Iran 191
ISI Web of Science
Science Citation Index Expanded (SCI-EXPANDED) 64
Italian Fiscal Authority
Sector Studies 314
Italian Statistical Institute (ISTAT) 314
Italy 311
Emilia Romagna 310–11, 314–15, 320, 325–6
Japan 22, 24
knowledge economy 9, 135, 263, 272
development of 136
emergence of 3
technology production in 135
knowledge spillover 22–3, 27, 81–2, 186, 204, 214, 243, 246
impact on agglomeration economies 185
interregional 7
intraregional 6
of entrepreneurship 142–3, 244
regional 5
knowledge transfer 65–6, 126, 132, 185, 311
from PRO 45
process of 124
regional branching based on 311
knowledge stickiness 65
Koenigsegg 270
labor
disputes 73
division of 120
force 190, 197, 203
immigrant 199, 201–3
self-employed 191, 201–2
market 188
demand 190
pooling 185
supply of 165
less developed countries (LDCs) 261, 263, 266
business milieu 268–9
labor practices in 267
manufacturing in 266–8, 270
offshoring 272, 275
supply chain 277
wage/cost advantages 270–71
LexisNexis Academic database 72
Likert scale 50

macroeconomics 1, 26, 188, 237
manufacturing 2, 7, 12, 26–8, 38, 46, 49, 125, 149–50, 154–5, 173, 175, 186, 190, 223, 232, 264, 266–7, 269–70, 281
3D printing 275
additive manufacturing (AM) 270–71
clustering of firms 185
cost of energy 271
economies of scale in 269–70
FDI in 276
high-tech 189
in LDCs 266–8
labor force in 202
machine 52
medicine/pharmaceutical 189
offshoring of 264, 266–7, 269–70, 272, 275
process 126–7
product development phase 272
re-shoring of 261–2, 264, 275–6
supply chain 277
Marshall–Arrow–Romer (MAR) model 6–7
Max Planck Institutes 64
Max Planck Society 59
Melting Pot Index 155
Metropolitan Statistical Areas (MSAs) 187–8, 201
broadband access in 212
high-tech immigrant entrepreneurs in 190, 194, 197, 199
Mexico 191, 267
Microsoft Corporation 67
Microsoft Excel 73
minimum effect scale (MES) 244
minimum performance inefficiency (MPI) technique 73
Missouri Census Data Center (MCDC) 215
multinational enterprises (MNEs) 275–6, 296
domestic 289, 296, 300
foreign 269, 289, 296–7, 300
multinational firms (MNFs) 3–4
National Statistics Institute (INE) 22
Netfix 211
Netherlands 266
new firm formation 216–18, 226–7, 231–2
factors influencing
cultural diversity 214–15
establishment size 213–14, 231–2
financial capital 214, 220, 230
government spending 214, 222
income growth 213
population growth 212–13
unemployment 213–14, 216
models of 217–18, 220
process of 215
role of broadband access in 212, 215, 217–18, 223, 225, 230–32
sectors 213, 215
accommodation 231
agriculture/forestry/fishing/hunting 223
finance/insurance/real estate 223, 225, 230–31
manufacturing 223
service 212, 231
new growth theory 210
North American Free Trade Agreement (NAFTA) 2
codes 189
four-digit 75
Norway 118
offshore oil sector of 125–6
ordinary least squares (OLS) 291, 294, 296, 300
estimation 76
regression 189
Organisation for Economic Co-operation and Development (OECD) 21–2, 24–5
patents 5–6, 12, 22–3, 46–7, 51–2, 56, 59, 70, 72–3, 77, 81, 184, 186–8, 190, 199–201, 210, 286
as measurement of innovation output 285–6
generation of 5
propensity 74
protection 69
technology-related 125
triadic 22
Philippines 191
Poisson regression 105
zero-inflated (ZIP) 107
Polanyi, Karl 121
Portugal manufacturing sector of 26
Priceline 211
principal component analysis (PCA) 150, 154, 15
product life cycle (PLC) model 262, 272, 274
critiques of 263
extended 272, 274
first phase 262
fourth phase 271, 274–5
second phase 262–3
third phase 263
productivity 14, 24–6, 33, 66, 69, 72, 83, 118, 133–6, 185, 211, 214, 267, 271, 281, 286, 288–90, 298–9, 301
enhanced 123, 126
equation 292–4, 296–8
exporting 283–4
barriers 283
R&D in 284
heterogeneity 281, 300
innovation effect on 284–5
of exports 300
of routines 131
regional 155
securing of 68
technological 81
profit maximization 120
public research institutes (PRIs) 44–8, 52, 58–60, 64
as category of PRO 50
collaboration with universities 55, 58, 60
domestic 50
foreign 50, 59
interaction with 48–9
personnel of 48
public financing of 44
support for firms in R&D 45–7
public research organization (PRO) 44–5, 48, 50–52, 56–9
categories of 55
PRIs 50, 60
universities 50
knowledge transfer from 45
Public Use Microdata Samples (PUMS) 188–9
purchasing power parity (PPP) 149
qualitative analysis 250
quantitative analysis 250
research and development (R&D) 3–4, 12, 21–2, 24–8, 36–8, 45–6, 51–2, 56, 58–9, 68, 74, 96, 99, 181, 281, 285, 289–90
advanced 51
applied 45, 58
early-stage 48
effect on firm survival 31, 35, 37–8
expenditure 12, 21–2, 24–8, 31, 35
domestic 23
in productivity exporting 284
intensity 52, 54
investment in 10–11, 25, 27, 32, 35, 37, 282, 284–5, 287
private 24
late-stage 48
outsourcing 8–9
personnel of 49
private 9, 45
public sector 25, 45–6
ratio 35, 37
resources 38
returns 27
routines 117–18, 123, 127–8, 130–33, 135–6
as phenomenon 118
complexity 128
concept of 118–19, 121–2
collection of 124
creation of 120
path dependency 124–5
relationship with innovation 133–4
process innovation 133–4
repetition in 122
stability of 122
use in management 123

Samsung 71
Schumpeter, Joseph 118–19, 144
SDC Platinum 72, 74
VentureXpert 71
Second World War (1939–45) 187
self-employment 186, 188–9
rates of 191
SEPI Foundation
Encuesta Sobre Estrategias
Empresariales (ESEE)
Silicon Valley 162–3
immigrant-run high-technology
firms in 184, 186–7, 197

South Korea 261
Soviet Union (USSR)
collapse of (1991) 2
Spain 22–3, 25–8
Basque Country 33
Cataluña 32–3
economy of 22–3, 38
La Rioja 33
Madrid 32–3
manufacturing sector of 12, 28, 37
Navarra 32–3
Pais Vasco 32–3

Spearman rank correlation coefficients 178
Standard Industrial Classification (SIC)
codes 189
start-ups 250
activity over business cycle 171–2, 178
INVs 105–7, 110
necessity-based 172–3
opportunity-based 172–3, 177
regional rates of 170–72

Spatial distribution of 176–7
Technological 74, 82
Statistics Sweden 51
strategic technology alliances 65
equity-based partnerships 71
short-term view of 70
Survey of Business Owners (SBO)
188–9
Survey of Current Business 264, 276
Sweden 13, 52, 64, 90, 98–9, 164,
170–71, 180, 266
Community Innovation Survey
(CIS) 90, 98–100, 110, 282,
293–4, 301
economic crisis (1990s) 173, 175
engineering sector of 46, 58
INVs in
operationalization of 98–9
Gnosjö-spirit 162–3
manufacturing sector of 12, 46, 49,
58
MNEs in 296
start-ups in 170–72
rates of 172, 177
Spatial distribution of 176–7
Taiwan 261
technological advancement 69–71, 77,
81
concept of 67
industry appropriability regimes 69
of corporations 74
rates of 12, 77, 82–3
speed of 67–8
technological imitation 66–8, 70
opportunities 72
variables 73–4
technological startups 74, 82
telecommunications 32, 189
infrastructure 210–11
three-stage least squares (3SLS) 288,
294, 300
estimator 290, 292, 297
total factor productivity 66, 72
growth rates of 69
impact of innovation output on
298
transition probability analysis
concept of 170
two-stage least squares (2SLS) 292
<table>
<thead>
<tr>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Auto Workers Union (UAW)</td>
</tr>
<tr>
<td>269</td>
</tr>
<tr>
<td>United Kingdom (UK) 22</td>
</tr>
<tr>
<td>manufacturing sector of 27</td>
</tr>
<tr>
<td>United States of America (USA) 2,</td>
</tr>
<tr>
<td>13–14, 22, 24–5, 47, 99, 186–8,</td>
</tr>
<tr>
<td>191, 262–3, 272</td>
</tr>
<tr>
<td>Atlanta, GA 194</td>
</tr>
<tr>
<td>Boston, MA</td>
</tr>
<tr>
<td>Route 128 162, 187</td>
</tr>
<tr>
<td>Chicago, IL 194</td>
</tr>
<tr>
<td>Department of Agriculture (DEA) 216</td>
</tr>
<tr>
<td>Federal Communications</td>
</tr>
<tr>
<td>Commission (FCC) 215</td>
</tr>
<tr>
<td>Fort Lauderdale, TX 194</td>
</tr>
<tr>
<td>Houston, TX 194</td>
</tr>
<tr>
<td>immigration waves to 201</td>
</tr>
<tr>
<td>Los Angeles, CA 194</td>
</tr>
<tr>
<td>manufacturing sector of 223, 264,</td>
</tr>
<tr>
<td>266, 275–6</td>
</tr>
<tr>
<td>Miami, FL 197</td>
</tr>
<tr>
<td>New York 194</td>
</tr>
<tr>
<td>Research Triangle Park 187</td>
</tr>
<tr>
<td>Riverside, CA 197</td>
</tr>
<tr>
<td>San Francisco, CA 184, 194</td>
</tr>
<tr>
<td>Washington DC 197</td>
</tr>
<tr>
<td>Zip Code Tabulation Area (ZCTA) 212, 215, 232</td>
</tr>
<tr>
<td>universities 44–5, 47, 64</td>
</tr>
<tr>
<td>as category of PRO 50</td>
</tr>
<tr>
<td>collaboration in innovation 44</td>
</tr>
<tr>
<td>collaboration with PRIs 55, 58, 60</td>
</tr>
<tr>
<td>interaction within 49</td>
</tr>
<tr>
<td>support for firms in R&amp;D 45–7</td>
</tr>
<tr>
<td>University of Bologna 314</td>
</tr>
<tr>
<td>UPS 212</td>
</tr>
<tr>
<td>urban economics 204</td>
</tr>
<tr>
<td>agglomeration benefits 184–5</td>
</tr>
<tr>
<td>US Census Bureau 75, 215–16</td>
</tr>
<tr>
<td>Vietnam 191</td>
</tr>
<tr>
<td>Warsaw Pact</td>
</tr>
<tr>
<td>collapse of (1991) 2</td>
</tr>
<tr>
<td>World Trade Organization (WTO) 2</td>
</tr>
<tr>
<td>Yahoo! 211</td>
</tr>
<tr>
<td>Yale University 72</td>
</tr>
<tr>
<td>zero-inflated negative binomial (ZINB)</td>
</tr>
<tr>
<td>specification 100, 105, 107</td>
</tr>
</tbody>
</table>