Index

absorptive capacity 12–13, 45, 57
acquisition of knowledge 124–5
Acs, Z. 12, 41
Afuah, A. 7, 9, 10, 38, 83
agents (brokers) 75–7, 81, 82, 87, 88
Ahuja, G. 9, 10, 11, 12, 48, 109
Akerblom, M. 40
Aldar, J. 46
Almeida, P. 16, 17, 19, 29, 55
Al-Osh, M.A. 115
alternative explanations and robustness 126–8
Alzaid, A.A. 115
Anderson, P.C. 106
Archibugi, D. 38, 40, 41, 110
architectural competence 44–5, 57, 58
Arrow, K. 12
Arundel, A. 40
asset-seeking (reverse internationalization) 6, 16–19, 21, 49, 74, 108
asymmetric information 73
Audretsch, D.B. 12, 41
Aw, B.Y. 20, 27, 28, 94

Baldwin, R. 25, 48
Baldwin, W. 11, 12
Banbury, C.M. 106
Barney, J. 8
Bartlett, C.A. 16
Bartlett, F.C. 76
Basberg, B.L. 40
Beamish, P.W. 27
Ben-David, D. 28, 43, 93
Benvignati, A. 26
Bernard, A. 20, 25, 27, 28, 43, 63
Bilkey, W.G. 37
biotechnology industry 18–19
Blasco, Eva 21
Blundell, R. 45, 70
Brainard, S.L. 25
Branstetter, L.G. 109

Braun, E. 18
Braunerhjelm, E. 26
brokers 75–7, 81, 82, 87, 88
Buckley, P.J. 16, 46
Burt, R. 20, 76
Buxton, T. 27

Cameron, A. 114, 115
Campa, J. 25, 27, 37, 76, 77, 83, 128
Cantwell, J. 18, 19, 29, 40
Carroll, G.R. 106
Casson, M. 16, 46
Caves, R.E. 16, 26, 46, 48, 49, 76
Cavusgil, S.T. 26
Chang, S.J. 16, 18, 29, 55
Chung, W. 46
Clark, K.B. 44, 106
Clerides, S.K. 18, 20, 27, 28, 42, 74
Cockburn, I. 11, 12, 13, 40, 44, 45, 57, 69, 110, 113, 114
Cohen, W.M. 9, 10, 12, 38, 40, 41, 44, 45, 48, 49, 57
Coleman, J.S. 73
Collins, B.E. 76
Comanor, W.S. 40, 41
complementary assets, innovation and 13, 14
component competence 44, 57
Cooper, R. 25, 26
Crook, J.N. 26, 27

daft, R. 76
Damanpour, F. 7
Dasgupta, P. 8
Delgado, M.A. 27, 28
dependent variables, study of learning by exporting 38–42
innovation output 41–2
patents 38–41
descriptive statistics 119–23
developed countries 74–5, 82, 88, 93, 109
developing countries 75, 93, 109
Dichtl, E. 26, 27
Dicken, P. 74
Dierickx, I. 11
direct exports 75–7
Dosi, G. 106
Doz, Y.L. 48
Drazin, R. 109
Drucker, P.F. 10
Dunning, J. 25, 74
economic growth, innovation and 11
Edwards, S. 93
European Patent Office (EPO) 38–9, 40
Evanson, R. 21
exchange rates 25
exporting, see international trade
Fayerweather, J. 48
Feeney, J. 43, 93
firms
exporting decision and behavior 25–7
innovation and 10, 11–14, 48
Flyer, F. 17
foreign direct investment (FDI) 4, 16–18, 21, 48, 55, 59, 64, 74, 108
Frankel, J.A. 93
free trade 93, 110
Freeman, C. 20
future research directions 107–11
Gentzoglanis, A. 49
Ghoshal, S. 16
Gilbert, R. 8, 12
Gilovich, T. 76
Gort, M. 44
Granger, C. 128
Granovetter, M. 73, 76
Graves, S. 12, 113
Greene, WH. 112, 113, 115, 116, 117, 127, 128
Greenhalgh, C. 27
Grenzmann, C. 40
Grief, S. 40
Griliches, Z. 38, 40
Grossman, G.M. 8, 20, 28, 29, 42, 55, 72, 74, 93, 110
Gruber, W. 26
Guetzkow, H. 76
Guillén, M.F. 37, 76, 77, 83, 93
Hall, B.H. 106
Hamilton, B.H. 116, 117
Hansen, M.T. 76, 77
Harianto, F. 45
Harrigan, J. 25
Hausman, J.B. 113, 114, 115
Hayek, F.A. 11, 17, 20, 73, 74
Heckman, J. 128
Helpman, E. 20, 24, 28, 29, 42, 55, 72, 74, 93, 110
Henderson, R. 11, 12, 13, 40, 44, 45, 57, 69, 106, 110, 113, 114
Huber, G. 76
Hwang, A. 20, 27, 28, 94
Hymer, S.H. 16, 48
independent variables, study of learning by exporting 42–7
exporting 42–3
knowledge assimilation competences 44–6
R&D index 46–7
Industrial Organization (IO) 8, 49
industry heterogeneity 92, 101, 104–5
assessment 94–101
spillover heterogeneity across industries 92–4
information, see knowledge and information
innovation 3, 5–6, 7, 13–14
asset-seeking and 18–19
exporting and 27–30
firms that innovate 10, 11–14, 48
knowledge and 10–11
learning by exporting and, see learning by exporting
output 41–2
process innovation 7, 58, 65–6, 68, 83
process of 8–10, 13
product innovation 7, 58, 59, 62–3, 103, 104, 110
knowledge assimilation competences and 66–8, 84–7
spillover heterogeneity and 78–81
strategy and 8, 72, 89–90, 104, 109
assessing spillover heterogeneity 77–84
moderating impact of knowledge assimilation competences 84–9
spillover heterogeneity among export strategies 72–7
input/output model of innovation 9
intermediaries (brokers) 75–7, 81, 82, 87, 88
internalization, see asset-seeking international trade 3, 23, 30–31
export strategy and innovation 72, 89–90, 104, 109
assessing spillover heterogeneity 77–84
moderating impact of knowledge assimilation competences 84–9
spillover heterogeneity among export strategies 72–7
exporting decision and behavior 24–7
external market characteristics 25
firm characteristics 25–7
free trade 93, 110
innovation and 27–30
knowledge sourcing and 19–21
learning by exporting and, see learning by exporting
productivity and 28–30
restrictions on 25
theory 24
investment 3
foreign direct investment (FDI) 16–18, 21, 48, 55, 59, 64, 74, 108
Italy, foreign investment in 19
Ito, K. 26
Jaccard, J. 47, 94
Japan
innovation in 13
joint ventures 18
Jensen, J.B. 20, 25, 27, 28, 43, 63
Johnson, J. 37
Johnson, N. 114
joint ventures 18, 109
Kamien, M.I. 9, 10, 49
Keller, W. 109
Kennedy, P. 112, 114, 115, 116
Kleinschmidt, E. 25, 26
Klepper, S. 106
Kmenta, J. 112
knowledge and information absorptive capacity 12–13, 45, 57
acquisition 124–5
assimilation competences 44–6, 57, 66–70, 84–9, 104
asymmetric 73
foreign direct investment (FDI) and 16–18, 21, 55
innovation and 10–11, 13, 14, 16
intermediaries (brokers) 75–7, 81, 82, 87, 88
international trade and 28
learning by exporting, see learning by exporting
sources of 7, 10–11, 19–21
spatial bounded 17
spillovers from, see spillovers
variability 74–5
Kogut, B. 16, 17, 18, 20, 29, 55, 72, 73
Kotabe, M. 109
Kotz, S. 114
Kravis, I. 23, 24, 26
Krugman, P. 24, 25
Lane, P.J. 45
Langowitz, N. 12, 113
language skills 26–7
learning by exporting 28, 29, 30–31, 35, 55, 70, 111
alternative explanations and robustness 126–8
control variables in study 48–51
dependent variables in study 38–42
innovation output 41–2
patents 38–41
descriptive statistics and product moment correlations 119–23
export strategy and innovation 72, 89–90, 104, 109
assessing spillover heterogeneity 77–84
moderating impact of knowledge assimilation competences 84–9
spillover heterogeneity among export strategies 72–7
foreign market contact 55–8
<table>
<thead>
<tr>
<th>Term</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>future research directions</td>
<td>107–11</td>
</tr>
<tr>
<td>independent variables in study</td>
<td>42–7</td>
</tr>
<tr>
<td>exporting</td>
<td>42–3</td>
</tr>
<tr>
<td>knowledge assimilation competences</td>
<td>44–6</td>
</tr>
<tr>
<td>R&amp;D index</td>
<td>46–7</td>
</tr>
<tr>
<td>industry heterogeneity and</td>
<td>92, 101, 104–5</td>
</tr>
<tr>
<td>assessing industry heterogeneity</td>
<td>94–101</td>
</tr>
<tr>
<td>spillover heterogeneity across industries</td>
<td>92–4</td>
</tr>
<tr>
<td>limitations of study</td>
<td>105–7</td>
</tr>
<tr>
<td>regression analysis</td>
<td>58–70</td>
</tr>
<tr>
<td>exporting and innovation</td>
<td>59–66</td>
</tr>
<tr>
<td>knowledge assimilation capabilities</td>
<td>66–70</td>
</tr>
<tr>
<td>statistical method of study</td>
<td>51–2, 112–17</td>
</tr>
<tr>
<td>study sample</td>
<td>35–7</td>
</tr>
<tr>
<td>summary of findings</td>
<td>103–5</td>
</tr>
<tr>
<td>Leonidou, L.C.</td>
<td>23, 26, 27, 107</td>
</tr>
<tr>
<td>Levin, R.C.</td>
<td>9, 10, 12, 38, 40, 41, 42, 48, 49</td>
</tr>
<tr>
<td>Levinthal, D.A.</td>
<td>12, 44, 45, 57</td>
</tr>
<tr>
<td>Lipsey, R.</td>
<td>23, 24, 26</td>
</tr>
<tr>
<td>Loewy, M.B.</td>
<td>43, 93</td>
</tr>
<tr>
<td>Lu, J.W.</td>
<td>27</td>
</tr>
<tr>
<td>Lubatkin, M.</td>
<td>45</td>
</tr>
<tr>
<td>MacDonald, S.</td>
<td>18</td>
</tr>
<tr>
<td>Maddala, G.</td>
<td>113, 115</td>
</tr>
<tr>
<td>management</td>
<td>26–7</td>
</tr>
<tr>
<td>March, J.</td>
<td>76, 106</td>
</tr>
<tr>
<td>Mariotti, S.</td>
<td>18</td>
</tr>
<tr>
<td>marketing</td>
<td>26</td>
</tr>
<tr>
<td>markets innovation and market structure</td>
<td>12, 49</td>
</tr>
<tr>
<td>learning by exporting and foreign market contact</td>
<td>55–8</td>
</tr>
<tr>
<td>market knowledge</td>
<td>10</td>
</tr>
<tr>
<td>Marshall, A.</td>
<td>17, 29, 74</td>
</tr>
<tr>
<td>Martin, X.</td>
<td>63, 72</td>
</tr>
<tr>
<td>Mas-Colell, A.</td>
<td>17</td>
</tr>
<tr>
<td>Masten, S.E.</td>
<td>116</td>
</tr>
<tr>
<td>Medin, D.L.</td>
<td>76</td>
</tr>
<tr>
<td>Miller, J.G.</td>
<td>76</td>
</tr>
<tr>
<td>Mitchell, W.</td>
<td>63, 106</td>
</tr>
<tr>
<td>Morck, R.</td>
<td>16, 48</td>
</tr>
<tr>
<td>Mowery, D.C.</td>
<td>44, 109</td>
</tr>
<tr>
<td>multinational corporations (MNCs)</td>
<td>48–9</td>
</tr>
<tr>
<td>Nadler, D.</td>
<td>20</td>
</tr>
<tr>
<td>Naor, J.</td>
<td>26</td>
</tr>
<tr>
<td>Nelson, R.</td>
<td>9, 10, 17, 73, 106</td>
</tr>
<tr>
<td>Nevin, J.</td>
<td>26</td>
</tr>
<tr>
<td>Newbery, D.</td>
<td>8, 12</td>
</tr>
<tr>
<td>Nicholls-Nixon, C.</td>
<td>45</td>
</tr>
<tr>
<td>Nickerson, J.A.</td>
<td>116, 117</td>
</tr>
<tr>
<td>oligopoly, innovation and</td>
<td>12</td>
</tr>
<tr>
<td>Olsen, J.P.</td>
<td>106</td>
</tr>
<tr>
<td>open economies</td>
<td>93, 110</td>
</tr>
<tr>
<td>Organization for Economic Co-operation and Development (OECD)</td>
<td>74–5</td>
</tr>
<tr>
<td>patents</td>
<td>38–41, 63–5, 67, 81–2, 87, 106, 110</td>
</tr>
<tr>
<td>Pavitt, K.</td>
<td>41</td>
</tr>
<tr>
<td>Penner-Hahn, J.</td>
<td>13, 17, 19, 45, 46, 55, 57</td>
</tr>
<tr>
<td>Pennings, J.M.</td>
<td>45</td>
</tr>
<tr>
<td>Penrose, E.</td>
<td>7, 8</td>
</tr>
<tr>
<td>pharmaceuticals industry, innovation in</td>
<td>12, 13</td>
</tr>
<tr>
<td>Phelps, C.C.</td>
<td>73</td>
</tr>
<tr>
<td>Pianta, M.</td>
<td>38, 40, 41, 110</td>
</tr>
<tr>
<td>Piscitello, L.</td>
<td>18, 19</td>
</tr>
<tr>
<td>Polanyi, M.</td>
<td>10</td>
</tr>
<tr>
<td>Porter, M.E.</td>
<td>17, 94</td>
</tr>
<tr>
<td>Portes, A.</td>
<td>73</td>
</tr>
<tr>
<td>Prahalad, C.K.</td>
<td>48</td>
</tr>
<tr>
<td>process innovation</td>
<td>7, 58, 65–6, 68, 83</td>
</tr>
<tr>
<td>product innovation</td>
<td>7, 58, 59, 62–3, 103, 104, 110</td>
</tr>
<tr>
<td>knowledge assimilation competences and</td>
<td>66–8, 84–7</td>
</tr>
<tr>
<td>spillover heterogeneity and</td>
<td>78–81</td>
</tr>
<tr>
<td>product moment correlations</td>
<td>119–23</td>
</tr>
<tr>
<td>productivity, international trade and</td>
<td>28–30</td>
</tr>
<tr>
<td>protectionism</td>
<td>110</td>
</tr>
<tr>
<td>Pucik, V.</td>
<td>26</td>
</tr>
<tr>
<td>regression analysis</td>
<td>58–70</td>
</tr>
<tr>
<td>exporting and innovation</td>
<td>59–66</td>
</tr>
</tbody>
</table>
knowledge assimilation capabilities 66–70
Reid, S.D. 26
research and development (R&D) 18, 19, 26
innovation and 8, 10, 48, 67–8
in study of learning by exporting 46–7
restrictions on trade 25
reverse engineering 20, 58
reverse internationalization (asset-seeking) 6, 16–19, 21, 49, 74, 108
Roberts, M. 25
Romer, D. 93
Root, F.J. 76
Rosenberg, N. 10, 56
Ross, D. 12
Rugman, A. M. 49
Sachs, J. 28
Salas, E. 39
Salomon, R. 24, 27, 72, 74, 116
Scherer, F.M. 12, 40, 41
Schilling, M.A. 73
Schlegelmilch, B.B. 26, 27
Schoonhoven, C.B. 109
Schumpeter, J.A. 7, 8, 11–12, 48, 105–6
Schwartz, N.L. 9, 10, 49
Scott, J.T. 11, 12, 48
Shan, W. 18
Shapiro, C. 8
Shaver, J.M. 13, 17, 19, 24, 27, 45, 46, 55, 58, 74, 116
Silverman, B. 8
Simon, H. 76
Simons, K.L. 106
Siotis, G. 29
Slaughter, M.J. 93
Smith, K. 40
Song, J. 18
Spain, 5, 109
study of learning by exporting 35
control variables in study 48–51
dependent variables 38–42
independent variables 42–7
innovation output 41–2
patents 38–41
spillovers 4, 14, 19, 20, 43
heterogeneity across industries 92–4
among export strategies 72–7
assessing industry heterogeneity 94–101
assessing spillover heterogeneity 77–84
statistical method of study 51–2, 112–17
Stiglitz, J. 8
strategy 8
export strategy and innovation 72, 89–90, 104, 109
assessing spillover heterogeneity 77–84
moderating impact of knowledge assimilation competences 84–9
spillover heterogeneity among export strategies 72–7
Szulanski, G. 72
takeovers 18
technology buying 49
foreign market contact and 56
licensing 49, 59
technological knowledge 10
Teece, D.J. 13
Teo, A.C. 106
Terpstra, V. 76
Tesar, G. 37
Tirolo, J. 8, 12, 17, 106
trade, see international trade
trade secrets 40
Trefler, D. 25
Trivedi, P. 114, 115
Tushman, M.L. 20, 106
Tybout, J. 25
Ulloa, G. 39
uncertainty 106
Uzzi, B. 76
Vahlne, J.E. 37
Van de Ven, A. 9
Vernon, R. 29, 56, 75, 105
von Hippel, E. 10, 11, 18, 55, 74
Wakelin, K. 27
Walker, R.D. 38
Warner, A. 28
<table>
<thead>
<tr>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Westphal, L. 21</td>
</tr>
<tr>
<td>Wiedersheim-Paul, F. 26</td>
</tr>
<tr>
<td>Williamson, O.E. 76</td>
</tr>
<tr>
<td>Winter, S.G. 9, 10, 106</td>
</tr>
<tr>
<td>World Bank 21</td>
</tr>
<tr>
<td>Yamawaki, H. 25</td>
</tr>
<tr>
<td>Yeung, B. 16, 48</td>
</tr>
<tr>
<td>Zahra, S.A. 73</td>
</tr>
<tr>
<td>Zander, U. 72</td>
</tr>
</tbody>
</table>