

JOHN CANTWELL : CURRICULUM VITAE

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Personal Career

Degrees held:

B.A. in Philosophy, Politics and Economics (University of Oxford, 1976).

M.Sc. in Economics (University of London, 1978).

Ph.D. in Economics (University of Reading, 1986).

Present positions:

Professor II (Distinguished Professor) of International Business, Rutgers University (since 2010).

Professor of International Business, Rutgers University (since 2002).

Honorary Professor in SPRU - Science and Technology Policy Research, University of Sussex (from 2006 - 2012).

Visiting posts:

Visiting Professor of Economics, University of Rome "La Sapienza" (March - April 1988; and March - April 1990).

Visiting Professor of Economics, University of Toulouse (February 1990).

Visiting Professor lecturing on International Aspects of Technological Change, Rutgers University (September 1993; and October 1995).

Visiting Professor of Economics, University of Economics and Business Administration, Vienna (October 1999 - January 2000).

Visiting Research Scholar, Earth Institute, Columbia University, New York (since October 2003).

Visiting Professor in the School of Business, University of Reading (from 2008-2010).

Previous appointments:

Economic Consultant, Economic Models Ltd., London (1976-1977).

Research Librarian, Department of Economics, University of Reading (1980-1984).

Lecturer in Economics, University of Reading (1984-1991).

Reader in International Economics, University of Reading (1991-1993).

Professor of International Economics, University of Reading (1993-2002).

Appointments in Professional Associations and to Editorships

Elections or appointments to professional bodies, and key invited addresses:

Member of the Executive Board, European International Business Association (December 1984 - December 1994).

President of the European International Business Association (December 1991 - December 1992).

Invited speaker, United Nations High Level Symposium on The Contribution of Transnational Corporations to Growth and Development in Latin America, Santiago, Chile, October 1992.

Member of the panel of referees for ESRC proposals, and for the SERC/ESRC joint committee. Referee in the 1992 UFC/PCFC and in the 2008 HEFCE research assessment exercise in the field of International Studies: Technology Policy.

Member of the Steering Committee of the ESRC's Research Programme on Intellectual Property Rights (1995-1999).

Member of the UK Treasury Academic Panel on inward investment, February 1997.

Fellow of the RSA - Royal Society for the encouragement of Arts, Manufactures and Commerce (since 1998).

Invited speaker, UK Department of Trade and Industry Conference on the Knowledge-Driven Economy, January 1999 (paper at <http://www.dti.gov.uk/comp/pdfs/kdeproc.pdf>).

Invited speaker, Academy of World Trade Law, Macau, July 2000 and July 2001.

Member of the Board of Management of the International J.A. Schumpeter Society (2000-2004).

Research Associate, Programme on International Regimes, Hamburg Institute of International Economics (HWWA) (2000-2002).

One of the four Founding Fellows of the European International Business Academy (since 2001), elected at the EIBA Annual Conference in Paris in December 2001; Secretary-Treasurer of the EIBA Fellows (2002-2007).

Member of the Panel for the Junior Faculty Consortium at the Academy of International Business (AIB) Annual Conference in Puerto Rico in June 2002, and for the Junior Faculty Consortium of the International Management Division at the Academy of Management Annual Conference in New Orleans in August 2004.

Chair of the Track on Innovation, Marketing, Internationalization of R&D, and Location Choices of Knowledge Intensive Activities by MNCs for the Academy of International Business (AIB) Annual Conference in Quebec City in July 2005, and member of the Program Committee for the meeting.

Elected as a Fellow of the Academy of International Business (since 2005).

Elected as the Vice President of the Academy of International Business from June 2006 to June 2008, with responsibility for the AIB conference program in Milan in 2008.

Member of the Best Dissertation Award committee for the Technology and Innovation Management division of the Academy of Management in 2007.

Chair of the Track on International Business and Science-Technology Relationships for the EIBA Annual Conference in Catania in December 2007.

Invited keynote speaker at the Conference on Looking Within or Searching Beyond in Knowledge Creation, at the Copenhagen Business School in October 2008.

Invited keynote speaker at the Prebem Conference on Blurring of the Boundaries of the Firm, at Nyenrode Business School, Breukelen in March 2010.

Invited keynote speaker at the Summer School of the Complutense University, Madrid on Innovation and Competitiveness held in El Escorial, July 2010.

Invited keynote speaker at the Center for International Business Education and Research (CIBER) Ph.D. Conference on Internationalizing Doctoral Education in Business (IBED) held in Madison, Wisconsin, July 2011.

Invited keynote speaker at the Annual Conference of the AIB Northeast Chapter held in Atlantic City, NJ, October 2011.

Editorships:

Editor-in-Chief of the Journal of International Business Studies (January 2011 - December 2013).

Editor of Routledge book Series on Global Competition (since December 1992).

Member of the editorial board of Management International Review (since 1994); Cuadernos de Economía y Dirección de la Empresa (since 1998); Journal of International Management (since 2001); Journal of Economic Behavior and Organization (since 2002); International Economics and Economic Policy (since 2004); Journal of Institutional Economics (since 2005); and International Journal of Technological Learning, Innovation and Development (since 2007).

Member of the scientific committee of Economia e Politica Industriale (since 2008).

Associate Editor, Journal of Economic Behavior and Organization (2002-2010). Associate Editor, Journal of International Business Studies (1997-2002).

Member of the Consulting Editors Board of the Journal of International Business Studies (July 2008 - December 2010).

Member of the editorial board of Journal of International Business Studies (1997-2007); and Journal of Management and Governance (2001-2006).

Guest Editor of special issues of the *Journal of Economic Behavior and Organization* (vol. 35, no. 2, on technology and the theory of the firm) in February 1998; of *Research Policy* (vol. 27, no. 5, on technology and the firm) in September 1998 (both with the support of Richard Nelson and Keith Pavitt); of the *Journal of International Relations and Development* (vol. 3, no. 2, on foreign direct investment and trade) in June 2000 (with Christian Bellak); and of the *International Journal of the Economics of Business* (vol. 8, no. 2, on the eclectic paradigm) in July 2001 (with Rajneesh Narula).

Research Output

(i) Books:

- (1) (With J.H. Dunning) *The IRM Directory of Statistics of International Investment and Production*, London: Macmillan, and New York: New York University Press, 1987, 820pp.
- (2) *Technological Innovation and Multinational Corporations*, Oxford: Basil Blackwell, 1989; reprinted, 1990, xvi + 239pp.
- (3) (Editor) *Multinational Investment in Modern Europe: Strategic Interaction in the Integrated Community*, Aldershot: Edward Elgar, 1992, xiii + 397pp.
- (4) (Editor) *Transnational Corporations and Innovatory Activities*, London: Routledge, 1994, ix + 447pp. (Volume 17 in the Series of Readings on Transnational Corporations).
- (5) (Editor) *Foreign Direct Investment and Technological Change*, Cheltenham: Edward Elgar, 1999, Volume I xxiv + 518pp., Volume II x + 489pp. (Volume 8 in the Series on The Globalization of the World Economy).
- (6) (With S. Iammarino) *Multinational Corporations and European Regional Systems of Innovation*, London: Routledge, 2003, xv + 199pp.
- (7) (With R. Narula, Editors) *International Business and the Eclectic Paradigm: Developing the OLI Framework*, London: Routledge, 2003, xvi + 304pp.
- (8) (With J. Molero, Editors) *Multinational Enterprises, Innovative Strategies and Systems of Innovation*, Cheltenham: Edward Elgar, 2003, xxiv + 323pp.
- (9) (With A. Gambardella and O. Granstrand, Editors) *The Economics and Management of Technological Diversification*, London: Routledge, 2004, xxiv + 356pp.
- (10) (Editor) *Globalization and the Location of Firms*, Cheltenham: Edward Elgar, 2004, xxv + 529pp. (Volume 15 in the Series on The Globalization of the World Economy).
- (11) (Editor) *The Economics of Patents*, Cheltenham: Edward Elgar, 2006, Volume I xxxiii + 456pp., Volume II viii + 537pp. (Volume 197 in the Series on The International Library of Critical Writings in Economics).
- (12) (With E. Amann, Editors) *Innovative Firms in Emerging Market Countries*, Oxford and New York: Oxford University Press, 2012, forthcoming.

(ii) Reports:

- (1) (With J.H. Dunning) *The New Forms of International Involvement of British Firms in the Third World*, Report submitted to the OECD, January 1985, 56pp.

- (2) *Technological Competition Between European and US Companies in the Post-War Period*, Report submitted to the Commission of the European Communities, October 1985, 115pp.
- (3) (With F. Sanna Randaccio) *L'Espansione delle Imprese Multinazionali Italiane negli Stati Uniti*, Rome: Istituto Affari Internazionali, 1987, 88pp.

(iii) Papers in refereed journals:

- (1) (With J.H. Dunning) "Investissements Américaines direct et compétitivité technologique Européenne", *L'Actualité Économique*, Vol. 58, No. 3, July-September 1982, pp. 341-379.
- (2) "The reorganisation of European industries after integration: selected evidence on the role of multinational enterprise activities", *Journal of Common Market Studies*, Vol. 26, No. 2, December 1987, pp. 127-151; reprinted in J.H. Dunning and P. Robson (Eds.), *Multinationals and the European Community*, Oxford: Basil Blackwell, 1988, pp. 25-49; in M.C. Casson (Ed.), *Multinational Corporations*, Aldershot: Edward Elgar, 1990, pp. 417-441; and in P. Robson (Ed.), *Transnational Corporations and Regional Economic Integration*, London: Routledge, 1993, pp. 173-198.
- (3) (With F. Sanna Randaccio) "The growth of multinationals and the catching up effect", *Economic Notes*, Vol. 19, No. 1, 1990, pp. 1-23.
- (4) (With F. Sanna Randaccio) "Effetti della attività multinazionale delle grande imprese: una verifica econometrica", *Economia e Politica Industriale*, Vol. 66, 1990, pp. 85-112.
- (5) (With J.H. Dunning) "Multinationals, technology and the competitiveness of European industries", *Aussenwirtschaft*, Vol. 46, No. 1, 1991, pp. 45-65; reprinted in J.A. Cantwell (Ed.), *Transnational Corporations and Innovatory Activities*, London: Routledge, 1994, pp. 408-425; and in J.E. Oxley and B. Yeung (Eds.), *Structural Change, Industrial Location and Competitiveness*, Aldershot: Edward Elgar, 1998, pp. 305-325; a different version appears in G.R. Faulhaber and G. Tamburini (Eds.), *European Economic Integration: The Role of Technology*, Boston: Kluwer Academic Publishers, 1991, pp. 117-148.
- (6) "The methodological problems raised by the collection of foreign direct investment data", *Scandinavian International Business Review*, Vol. 1, No. 1, 1992, pp. 86-102; reprinted in W. Grabendorff (Ed.), *Foreign Direct Investment in Developing Countries: The Case of Latin America*, Madrid: IRELA, 1994, pp. 9-27.
- (7) (With F. Sanna Randaccio) "Multinationality and firm growth", *Weltwirtschaftliches Archiv*, Vol. 129, No. 2, June 1993, pp. 275-299.
- (8) "The contribution of recent foreign direct investment in services to a changing international division of labour", *Development and International Cooperation*, Vol. 9, No. 17, December 1993, pp. 193-222.
- (9) "The globalisation of technology: what remains of the product cycle model?", *Cambridge Journal of Economics*, Vol. 19, No. 1, February 1995, pp. 155-174; reprinted in D. Archibugi and J. Michie (Eds.), *Technology, Globalisation and*

Economic Performance, Cambridge: Cambridge University Press, 1997, pp. 215-240; in A.D. Chandler, P. Hagström and O. Sölvell (Eds.), *The Dynamic Firm*, Oxford: Oxford University Press, 1998, pp. 263-288; and in J.A. Cantwell (Ed.), *Foreign Direct Investment and Technological Change*, Vol. II, Cheltenham: Edward Elgar, 1999, pp. 102-121.

- (10) (With M.P. Barrera) "Inter-company agreements for technological development", *International Studies of Management and Organization*, Vol. 25, Nos. 1-2, Spring-Summer 1995, pp. 75-95.
- (11) (With C. Bellak) "FDI - how much is it worth? Comment on S.J. Gray and A.M. Rugman", *Transnational Corporations*, Vol. 5, No. 1, April 1996, pp. 85-97.
- (12) (With H.B. Andersen) "A statistical analysis of corporate technological leadership historically", *Economics of Innovation and New Technology*, Vol. 4, No. 3, Summer 1996, pp. 211-234.
- (13) (With C. Bellak) "Small latecomer countries in a globalising environment: constraints and opportunities for catching-up", *Development and International Cooperation*, Vol. 13, Nos. 24-25, June-December 1997, pp. 139-179.
- (14) (With R. Harding) "The internationalisation of German companies' R&D", *National Institute Economic Review*, Vol. 163, January 1998, pp. 99-115.
- (15) (With C. Bellak) "How important is foreign direct investment?", *Oxford Bulletin of Economics and Statistics*, Vol. 60, No. 1, 1998, pp. 99-106.
- (16) "Knowledge, capabilities, imagination and cooperation in business: introduction", *Journal of Economic Behavior and Organization*, Vol. 35, No. 2, February 1998, pp. 133-137.
- (17) (With A. Bachmann) "Changing patterns of technological leadership: evidence from the pharmaceutical industry", *International Journal of Innovation Management*, Vol. 2, No. 1, March 1998, pp. 45-77.
- (18) (With M.P. Barrera) "The localisation of corporate technological trajectories in the interwar cartels: cooperative learning versus an exchange of knowledge", *Economics of Innovation and New Technology*, Vol. 6, Nos. 2-3, Summer 1998, pp. 257-290.
- (19) "Technology and the firm: introduction", *Research Policy*, Vol. 27, No. 5, September 1998, pp. iii-v.
- (20) (With S. Iammarino) "MNCs, technological innovation and regional systems in the EU: some evidence in the Italian case", *International Journal of the Economics of Business*, Vol. 5, No.3, November 1998, pp. 383-408.
- (21) (With O.E.M. Janne) "Technological globalisation and innovative centres: the role of corporate technological leadership and locational hierarchy", *Research Policy*, Vol. 28, Nos. 2-3, 1999, pp. 119-144; reprinted in J.A Cantwell (Ed.), *Globalization and the Location of Firms*, Cheltenham: Edward Elgar, 2004, pp. 409-434.

- (22) (With L. Piscitello) "The emergence of corporate international networks for the accumulation of dispersed technological competences", *Management International Review*, Vol. 39, Special Issue No. 1, 1999, pp. 123-147.
- (23) (With G.D. Santangelo) "The frontier of international technology networks: sourcing abroad the most highly tacit capabilities", *Information Economics and Policy*, Vol. 11, No. 1, 1999, pp. 101-123.
- (24) (With F.M. Fai) "Firms as the source of innovation and growth: the evolution of technological competence", *Journal of Evolutionary Economics*, Vol. 9, No. 3, 1999, pp. 331-366.
- (25) "From the early internationalization of corporate technology to global technology sourcing", *Transnational Corporations*, Vol. 8, No. 2, 1999, pp. 71-92.
- (26) (With G.D. Santangelo) "Capitalism, profits and innovation in the new techno-economic paradigm", *Journal of Evolutionary Economics*, Vol. 10, Nos. 1-2, 2000, pp. 131-157; reprinted in D.C. Mueller and U. Cantner (Eds.), *Capitalism and Democracy in the 21st Century*, Berlin: Springer, 2001, pp. 137-164.
- (27) (With L. Piscitello) "Accumulating technological competence: its changing impact on corporate diversification and internationalisation", *Industrial and Corporate Change*, Vol. 9, No. 1, 2000, pp. 21-51.
- (28) (With S. Iammarino) "Multinational corporations and the location of technological innovation in the UK regions", *Regional Studies*, Vol. 34, No. 4, June 2000, pp. 317-332.
- (29) (With O.E.M. Janne) "The role of multinational corporations and nation states in the globalisation of innovatory capacity: the European perspective", *Technology Analysis and Strategic Management*, Vol. 12, No. 2, June 2000, pp. 243-262.
- (30) (With R. Mudambi) "The location of MNE R&D activity: the role of investment incentives", *Management International Review*, Vol. 40, Special Issue No. 1, 2000, pp. 127-148.
- (31) "Technological lock-in of large firms since the interwar period", *European Review of Economic History*, Vol. 4, No. 2, August 2000, pp. 147-174.
- (32) (With M.G. Colombo) "Technological and output complementarities: inter-firm cooperation in information technology ventures", *Journal of Management and Governance*, Vol. 4, Nos. 1-2, 2000, pp. 117-147.
- (33) (With R. Narula) "The eclectic paradigm in the global economy", *International Journal of the Economics of Business*, Vol. 8, No. 2, July 2001, pp. 155-172.
- (34) "Centres of excellence, and information and communications technologies in multinational corporations: new research directions and evidence", *Economia e Politica Industriale*, Vol. 109, 2001, pp. 157-162.
- (35) (With S. Iammarino) "EU regions and multinational corporations: change, stability and strengthening of technological comparative advantages", *Industrial and Corporate Change*, Vol. 10, No. 4, 2001, pp. 1007-1037.

- (36) (With G.D. Santangelo) "The new geography of corporate research in information and communications technology", *Journal of Evolutionary Economics*, Vol. 12, No. 1, 2002, pp. 163-197; reprinted in J.S. Metcalfe and U. Cantner (Eds.), *Change, Transformation and Development*, Berlin: Springer, 2003, pp. 343-377.
- (37) (With J.H. Dunning and O.E.M. Janne) "Evolution of multinational corporate technological systems in the UK and US", *Journal of Interdisciplinary Economics*, Vol. 13, Nos. 1-2, 2002, pp. 135-163.
- (38) (With L. Piscitello) "The location of technological activities of MNCs in European regions: the role of spillovers and local competencies", *Journal of International Management*, Vol. 8, No. 1, 2002, pp. 69-96.
- (39) (With G.D. Santangelo) "The significance of European small country regions in the geographical division of labour of European information and communications technology (ICT) corporations", *International Journal of Technology Management*, Vol. 24, Nos. 7-8, 2002, pp. 663-679.
- (40) (With G.D. Santangelo) "M&As and the global strategies of TNCs", *The Developing Economies*, Vol. 40, No. 4, December 2002, pp. 400-434.
- (41) (With C. Bellak) "Revaluing the capital stock of international production", *International Business Review*, Vol. 13, No. 1, February 2004, pp. 1-18.
- (42) (With J.H. Dunning and O.E.M. Janne) "Towards a technology-seeking explanation of US direct investment in the UK", *Journal of International Management*, Vol. 10, No. 1, 2004, pp. 5-20.
- (43) (With G. Vertova) "Historical evolution of technological diversification", *Research Policy*, Vol. 33, No. 3, 2004, pp. 511-529.
- (44) (With K. Glac and R. Harding) "The internationalization of R&D - the Swiss case", *Management International Review*, Vol. 44, Special Issue No. 3, 2004, pp. 57-82.
- (45) (With K. Glac) "La estrategia tecnológica de las empresas multinacionales y el desarrollo de capacidades tecnológicas locales", *Cuadernos de Economía y Dirección de la Empresa*, Vol. 20, No. 3, July-September 2004, pp. 83-101.
- (46) (With L. Piscitello) "Recent location of foreign-owned R&D activities by large multinational corporations in the European regions: the role of spillovers and externalities", *Regional Studies*, Vol. 39, No. 1, February 2005, pp. 1-16.
- (47) (With S. Iammarino) "The technological innovation of multinational corporations in the French regions", *Revue d'Économie Industrielle*, No. 109, March 2005, pp. 9-28.
- (48) (With R. Mudambi) "MNE competence-creating subsidiary mandates", *Strategic Management Journal*, Vol. 26, No. 12, December 2005, pp. 1109-1128.
- (49) (With H. Barnard) "Knowledge in the theory of the firm and MNC: asset or action?", *Journal of Management and Governance*, Vol. 10, No. 1, March 2006, pp. 21-27.

- (50) (With G.D. Santangelo) "The boundaries of firms in the new economy: M&As as a strategic tool toward corporate technological diversification", *Structural Change and Economic Dynamics*, Vol. 17, No. 2, June 2006, pp. 174-199.
- (51) (With Y. Zhang) "Why is the R&D internationalization of Japanese firms so low? A path-dependent explanation", *Asian Business and Management*, Vol. 5, No. 2, June 2006, pp. 249-269.
- (52) (With S.S. Athreye) "Creating competition? Globalisation and the emergence of new technology producers", *Research Policy*, Vol. 36, No. 2, March 2007, pp. 209-226.
- (53) (With L. Piscitello) "Attraction and deterrence in the location of foreign-owned R&D activities - the role of positive and negative spillovers", *International Journal of Technological Learning, Innovation and Development*, Vol. 1, No. 1, 2007, pp. 83-111.
- (54) (With L. Piscitello) "How the trend towards competence-creating subsidiary innovation co-evolves with its environment", *Economia e Politica Industriale*, Vol. 35, No. 1, 2008, pp. 145-154.
- (55) "Location and the multinational enterprise", *Journal of International Business Studies*, Vol. 40, No. 1, 2009, pp. 35-41.
- (56) (With Y. Zhang) "The co-evolution of international business connections and domestic technological capabilities: lessons from the Japanese catch-up experience", *Transnational Corporations*, Vol. 18, No. 2, August 2009, pp. 37-68.
- (57) (With J.H. Dunning and S.M. Lundan) "An evolutionary approach to understanding international business activity: the co-evolution of MNEs and the institutional environment", *Journal of International Business Studies*, Vol. 41, No. 4, 2010, pp. 567-586.
- (58) (With Y. Zhang) "Innovation and location in the multinational firm", *International Journal of Technology Management*, Vol. 54, No. 1, 2011, pp. 116-132.
- (59) (With J. Peerally) "The impact of trade policy regimes on firms' learning for innovation from suppliers", *International Journal of Innovation Management*, Vol. 15, No. 1, February 2011, pp. 29-68.
- (60) (With Y. Zhang) "Exploration and exploitation: the different impacts of two types of Japanese business group networks on firm innovation and global learning", *Asian Business and Management*, Vol. 10, No. 2, May 2011, pp.151-181.
- (61) (With I. Alvarez) "International integration and mandates of innovative subsidiaries in Spain", *International Journal of Institutions and Economies*, Vol. 3, No. 3, October 2011, pp. 415-444.
- (62) (With R. Mudambi) "Physical attraction and the geography of knowledge sourcing in multinational enterprises", *Global Strategy Journal*, Vol. 1, Nos. 3-4, November 2011, pp. 206-232.

- (63) (With F. Zhang) "Technological complexity and the evolving structure of MNC subsidiary knowledge accumulation", *Economia e Politica Industriale*, Vol. 38, No. 4, December 2011, pp. 5-33.
- (64) (With J. Peeraly) "Changes in trade policies and the heterogeneity of domestic and multinational firms' strategic response: the effects on firm-level capabilities", *World Development*, Vol. 40, No. 3, March 2012, pp. 469-485.

(iv) Chapters in books:

- (1) (With J.H. Dunning) "The emergence of multinationals in the growth of international production" in A. Fonseca (Ed.), *Multinationals in Third World Countries*, Rome: IFCU Centre of Research, 1984, pp. 22-31.
- (2) (With J.H. Dunning and T.A.B. Corley) "The theory of international production : some historical antecedents", in G. Jones and P. Hertner (Eds.), *Multinationals: Theory and History*, Farnborough: Gower, 1986, pp. 19-41.
- (3) "Recent trends in foreign direct investment in Africa" in V. Cable (Ed.), *Foreign Investment Policies and Prospects in Africa*, London : Commonwealth Secretariat, 1986, pp. 75-94.
- (4) "The changing form of multinational enterprise expansion in the twentieth century", in A. Teichova, M Lévy-Leboyer and H. Nussbaum (Eds.), *Historical Studies in International Corporate Business*, Cambridge: Cambridge University Press, 1989, pp.15-28.
- (5) "Teorie della produzione internazionale", in N. Acocella and R. Schiattarella (Eds.), *Teorie dell'Internazionalizzazione e Realtà Italiana*, Napoli: Ligouri, 1989, pp. 19-66.
- (6) (With J.H. Dunning) "Le nuove forme di coinvolgimento delle imprese britanniche nel Terzo Mondo", in R. Burlando (Ed.), *Transferimenti di Tecnologie e Finanziamenti ai Paesi in Via di Sviluppo*, Milano: Franco Angeli, 1989, pp. 127-166.
- (7) "The growing internationalisation of industry: a comparison of the changing structure of company activity in the major industrialised countries", in A.D. Webster and J.H. Dunning (Eds.), *Structural Change through the World Economy*, London: Routledge 1990, pp. 91-113.
- (8) "Historical trends in international patterns of technological innovation", in J. Foreman-Peck (Ed.), *New Perspectives on the Late Victorian Economy: Quantitative Essays on British Economic History*, Cambridge: Cambridge University Press, 1991, pp. 37-72.
- (9) (With J.H. Dunning) "Japanese direct investment in Europe", in B. Bürgenmeier and J.L. Mucchielli (Eds.), *Multinationals and Europe 1992: Strategies for the Future*, London: Routledge, 1991, pp. 155-184.
- (10) "A survey of theories of international production", in C.N. Pitelis and R. Sugden (Eds.), *The Nature of the Transnational Firm*, London: Routledge, 1991, pp. 16-63; revised and reprinted, 2000, pp. 10-56.

- (11) "Foreign multinationals and industrial development in Africa", in P.J. Buckley and L.J. Clegg (Eds.), *Multinational Enterprises in Less Developed Countries*, London: Macmillan, 1991, pp. 183-224; reprinted in D. Chudnovsky (Ed.), *Transnational Corporations and Industrialisation*, London: Routledge, 1993, pp. 243-278.
- (12) (With C. Hodson) "Global R&D and British competitiveness", in M.C. Casson (Ed.), *Global Research Strategy and International Competitiveness*, Oxford: Basil Blackwell, 1991, pp. 133-182.
- (13) "The international agglomeration of technological activity", in M.C. Casson (Ed.), *Global Research Strategy and International Competitiveness*, Oxford: Basil Blackwell, 1991, pp. 104-132.
- (14) "The theory of technological competence and its application to international production", in D.G. McFetridge (Ed.), *Foreign Investment, Technology and Economic Growth*, Calgary: University of Calgary Press, 1991, pp. 33-67; reprinted in J.A. Cantwell (Ed.), *Transnational Corporations and Innovatory Activities*, London: Routledge, 1994, pp. 107-143; and in J.A. Cantwell (Ed.), *Foreign Direct Investment and Technological Change*, Vol. I, Cheltenham: Edward Elgar, 1999, pp. 202-236.
- (15) "The effects of integration on the structure of multinational corporation activity in the EC", in M. Klein and P.J.J. Welfens (Eds.) *Multinationals in the New Europe and Global Trade*, Berlin: Springer Verlag, 1992, pp. 193-233; a shorter version appears in J.H. Dunning and K.P. Sauvant (Eds.), *From the Common Market to EC 92: Regional Economic Integration in the European Community and Transnational Corporations* New York: United Nations, 1993, pp. 57-85.
- (16) "The changing dynamics of international production", in J. Van Den Broeck and D. Van Den Bulcke (Eds.), *Changing Economic Order*, Groningen: Wolters-Noordhoff, 1992, pp. 117-126.
- (17) "Innovation and technological competitiveness", in P.J. Buckley and M.C. Casson (Eds.), *Multinational Enterprises in the World Economy: Essays in Honour of John Dunning*, Aldershot: Edward Elgar, 1992, pp. 20-40.
- (18) "The internationalisation of technological activity and its implications for competitiveness", in O. Granstrand, L. Håkanson and S. Sjölander (Eds.), *The Internationalisation of R&D and Technology*, Chichester: John Wiley, 1992, pp. 75-95.
- (19) "Japan's industrial competitiveness and the technological capabilities of the leading Japanese firms", in T.S. Arrison, C.F. Bergsten, E.M. Graham and M.C. Harris (Eds.), *Japan's Growing Technological Capability: Implications for the US Economy*, Washington DC: National Academy Press, 1992, pp. 165-188.
- (20) "Introduction", in J.A. Cantwell (Ed.), *Multinational Investment in Modern Europe: Strategic Interaction in the Integrated Community*, Aldershot: Edward Elgar, 1992, pp. 1-12.
- (21) (With F. Sanna Randaccio) "Intra-industry direct investment in the European Community: oligopolistic rivalry and technological competition", in J.A. Cantwell

- (Ed.), *Multinational Investment in Modern Europe: Strategic Interaction in the Integrated Community*, Aldershot: Edward Elgar, 1992, pp. 71-106.
- (22) "Technological competence and evolving patterns of international production", in H. Cox, L.J. Clegg and G. Ietto-Gillies (Eds.), *International Business: Three Agendas for the 1990s*, London: Routledge, 1993, pp. 19-37.
- (23) "Corporate technological specialisation in international industries", in M.C. Casson and J. Creedy (Eds.), *Industrial Concentration and Economic Inequality: Essays in Honour of Peter Hart*, Aldershot: Edward Elgar, 1993, pp. 216-232.
- (24) "The internationalisation of technological activity in historical perspective", in V.C. Simões (Ed.), *International Business and Europe After 1992*, Vol. 1, Lisbon: CEDE, 1993, pp. 263-283.
- (25) (With U. Kotecha) "L'internationalisation des activités technologiques: le cas français en perspective", in F. Sachwald (Ed.), *Les Défis de la Mondialisation: Innovation et Concurrence*, Paris: Masson, 1994, pp. 107-152; English language version "The internationalisation of technological activity: the French evidence in a comparative setting", in J. Howells and J. Michie (Eds.), *Technology, Innovation and Competitiveness*, Aldershot: Edward Elgar, 1997, pp. 126-173.
- (26) "Introduction", in J.A. Cantwell (Ed.), *Transnational Corporations and Innovatory Activities*, London: Routledge, 1994, pp. 1-32.
- (27) "The relationship between international trade and international production", in D. Greenaway and L.A. Winters (Eds.), *Surveys in International Trade*, Oxford: Basil Blackwell, 1994, pp. 303-328.
- (28) "Teorie della internazionalizzazione della produzione", in N. Acocella (Ed.), *L'Impresa Multinazionale: Prospettive per una Teoria*, Trieste: Edizioni Lint, 1994, pp. 15-38.
- (29) (With M.P. Barrera) "The influence of international cartels on technological development in large firms", in D. Barjot (Ed.), *International Cartels Revisited, 1880-1980*, Caen: University of Caen Press, 1994, pp. 301-324.
- (30) "The evolution of European industrial technology in the interwar period", in F. Caron, P. Erker and W. Fischer (Eds.), *Innovations in the European Economy Between the Wars*, Berlin: de Gruyter, 1995, pp. 277-319.
- (31) "Multinational corporations and innovatory activities: towards a new, evolutionary approach", in J. Molero (Ed.), *Technological Innovation, Multinational Corporations and New International Competitiveness*, Chur: Harwood, 1995, pp. 21-57; reprinted in W.W. Liang, D.F. Simon and W.M. Denny (Eds.), *Technology Transfer in the Globally Networked Pacific Basin*, Hong Kong: Pacific Economic Cooperation Council, 1995, pp. 110-135; reprinted as "Imprese multinazionali e attività innovative: verso un approccio evoluzionista", in D. Archibugi and G. Imperatori (Eds.), *Economia Globale e Innovazione: La Sfida dell'Industria Italiana*, Rome: Donzelli Editore, 1997, pp. 73-112.
- (32) (With L. Piscitello) "The internationalisation of business and the economic development of Central and Eastern Europe", in G. Csáki, G. Fóti and D. Mayes

(Eds.), *Foreign Direct Investment and Transition - The Case of the Visegrad Countries*, Budapest: Hungarian Academy of Sciences Press, 1996, pp. 57-72.

- (33) "Global competitive strategies for scienceware products: comments on Horst Albach's approach", in G. Koopman and H.-E. Scharrer (Eds.), *The Economics of High Technology Competition and Cooperation in Global Markets*, Baden-Baden: Nomos Verlagsgesellschaft (HWWA Series, Vol. 26), 1996, pp. 219-225.
- (34) "Globalisation and development in Africa", in J.H. Dunning and K.A. Hamdani (Eds.), *The New Globalism and Developing Countries*, Tokyo and New York: UN University Press, 1997, pp.155-179.
- (35) "The world market in the year 2000", in EC DG XIII (Ed.), *Strategies for the Protection of Innovation in New Technologies*, Luxembourg: European Commission (Proceedings of the Third European Congress on Innovation, Management and Patents - Patinnova '94), 1997, pp. 12-16.
- (36) (With C. Bellak) "Globalization tendencies relevant for latecomers: some conceptual issues", in M. Storper, S.B. Thomadakis and L.J. Tsipouri (Eds.), *Latecomers in the Global Economy*, London: Routledge, 1998, pp. 40-75.
- (37) (With I. Paniccia) "Technological change and vertical integration in multinational companies", in M.G. Colombo (Ed.), *The Changing Boundaries of the Firm: Explaining Evolving Inter-Firm Relations*, London: Routledge, 1998, pp. 158-184.
- (38) (With O.E.M. Janne) "The internationalisation of technological activity: the Dutch case", in R. van Hoesel and R. Narula (Eds.), *Multinational Enterprises from the Netherlands*, London: Routledge, 1999, pp. 84-137.
- (39) "Introduction", in J.A Cantwell (Ed.), *Foreign Direct Investment and Technological Change*, Vol. I, Cheltenham: Edward Elgar, 1999, pp. ix-xxiv.
- (40) (With F.M. Fai) "The changing nature of corporate technological diversification and the importance of organisational capability", in S.C. Dow and P.E. Earl (Eds.), *Contingency, Complexity and the Theory of the Firm: Essays in Honour of Brian J. Loasby*, Vol. II, Cheltenham: Edward Elgar, 1999, pp. 113-137.
- (41) "Innovation as the principal source of growth in the global economy", in D. Archibugi, J. Howells and J. Michie (Eds.), *Innovation Policy in a Global Economy*, Cambridge: Cambridge University Press, 1999, pp. 225-241.
- (42) (With O.E.M. Janne) "Globalisation of innovatory capacity: the structure of competence accumulation in European home and host countries", in F. Chesnais, G. Ietto-Gillies and R. Simonetti (Eds.), *European Integration and Global Corporate Strategies*, London: Routledge, 2000, pp. 121-177; reprinted as "Globalización de la capacidad innovadora: la estructura de la acumulación de competencias en los países europeos emisores y receptores", in J. Molero (Ed.), *Competencia Global y Cambio Tecnológico*, Madrid: Ediciones Pirámide, 2000, pp. 143-222.
- (43) (With S. Iammarino and C.A. Noonan) "Sticky places in slippery space – the location of innovation by MNCs in the European regions", in N. Pain (Ed.), *Inward Investment, Technological Change and Growth: The Impact of Multinational Corporations on the UK Economy*, London: Macmillan, 2000, pp. 210-239; reprinted in J.A Cantwell

(Ed.), *Globalization and the Location of Firms*, Cheltenham: Edward Elgar, 2004, pp. 470-499.

- (44) "Innovation and information technology in multinational enterprise", in A.M. Rugman and T.L. Brewer (Eds.), *The Oxford Handbook of International Business*, Oxford: Oxford University Press, 2001, pp. 431-456.
- (45) (With C.A. Noonan) "The regional distribution of technological development: evidence from foreign-owned firms in Germany", in M.P. Feldman and N. Massard (Eds.), *Institutions and Systems in the Geography of Innovation*, Dordrecht: Kluwer Academic Publishers, 2002, pp. 199-230.
- (46) "Innovation, profits and growth: Penrose and Schumpeter", in C.N. Pitelis (Ed.), *The Theory of the Growth of the Firm: The Legacy of Edith Penrose*, Oxford: Oxford University Press, 2002, pp. 215-248.
- (47) (With E. Kosmopoulou) "What determines the internationalisation of corporate technology?", in V. Havila, M. Forsgren and H. Håkanson (Eds.), *Critical Perspectives on Internationalisation*, Oxford: Pergamon, 2002, pp. 305-334.
- (48) (With L. Piscitello) "Corporate diversification, internationalisation and location of technological activities by MNCs in Europe", in H. Kierzkowski (Ed.), *Europe and Globalization*, London: Palgrave, 2002, pp. 162-184.
- (49) (With S. Iammarino) "The technological relationships between indigenous firms and foreign-owned MNCs in the European regions", in P. McCann (Ed.), *Industrial Location Economics*, Cheltenham: Edward Elgar, 2002, pp. 286-318.
- (50) "The changing institutional form of innovation: from exploiting market power to developing corporate technological capability", in R. Mudambi, P. Navarra and G. Sobbrío (eds.), *Economic Welfare, International Business and Global Institutional Change*, Cheltenham: Edward Elgar, 2003, pp. 167-191.
- (51) (With R. Narula) "Revisiting the eclectic paradigm: new developments and current issues", in J.A. Cantwell and R. Narula (Eds.), *International Business and the Eclectic Paradigm: Developing the OLI Framework*, London: Routledge, 2003, pp. 1-24.
- (52) (With J. Molero) "Introduction", in J.A. Cantwell and J. Molero (eds.), *Multinational Enterprises, Innovative Strategies and Systems of Innovation*, Cheltenham: Edward Elgar, 2003, pp. 1-14.
- (53) (With E. Kosmopoulou) "Path-dependency and coherence in international networks of technological innovation", in J.A. Cantwell and J. Molero (eds.), *Multinational Enterprises, Innovative Strategies and Systems of Innovation*, Cheltenham: Edward Elgar, 2003, pp. 47-80.
- (54) (With E. Kosmopoulou) "Analysing the locational pattern of international corporate technological research", in M.G. Serapio and T. Hayashi (Eds.), *Internationalization of Research and Development and the Emergence of Global R&D Networks*, Oxford: Elsevier - Jai, 2004, pp. 41-83.
- (55) (With R. Mudambi) "Multinational enterprises and competence-creating knowledge flows: a theoretical analysis", in V. Mahnke and T. Pedersen (Eds.), *Knowledge*

Flows, Governance and the Multinational Enterprise: Frontiers in International Management Research, London: Palgrave Macmillan, 2004, pp. 38-57.

- (56) (With A. Gambardella and O. Granstrand) "Technological and corporate diversification", in J.A. Cantwell, A. Gambardella and O. Granstrand (Eds.), *The Economics and Management of Technological Diversification*, London: Routledge, 2004, pp. 1-17.
- (57) (With L. Piscitello) "The relationship between technological diversification and internationalisation", in J.A. Cantwell, A. Gambardella and O. Granstrand (Eds.), *The Economics and Management of Technological Diversification*, London: Routledge, 2004, pp. 101-115.
- (58) "Historical shifts in corporate technological diversification", in J.A. Cantwell, A. Gambardella and O. Granstrand (Eds.), *The Economics and Management of Technological Diversification*, London: Routledge, 2004, pp. 265-296.
- (59) (With A. Gambardella and O. Granstrand) "Summary and conclusions", in J.A. Cantwell, A. Gambardella and O. Granstrand (Eds.), *The Economics and Management of Technological Diversification*, London: Routledge, 2004, pp. 333-341.
- (60) "Introduction", in J.A. Cantwell (Ed.), *Globalization and the Location of Firms*, Cheltenham: Edward Elgar, 2004, pp. xi-xxv.
- (61) "Innovation and competitiveness", in J. Fagerberg, D.C. Mowery and R.R. Nelson (Eds.), *The Oxford Handbook of Innovation*, Oxford: Oxford University Press, 2005, pp. 543-567.
- (62) (With C. Iguchi) "Effects of backward linkages to local suppliers' development path: the case of the Malaysian electrical and electronics industry", in A. Giroud, A.T. Mohr and D. Yang (Eds.), *Multinationals and Asia: Organizational and Institutional Relationships*, London and New York: Routledge, 2005, pp. 54-71.
- (63) "Too little or too much?", in S. Passow and M. Runnbeck (Eds.), *What's Next? Strategic Views on Foreign Direct Investment*, Stockholm: Invest in Sweden Agency, 2005, pp. 32-37.
- (64) (With K. Glac) "TNCs, locational clustering and the process of economic development", in L. Cuyvers and F. De Beule (Eds.), *Transnational Corporations and Economic Development: From Internationalisation to Globalisation*, London: Palgrave Macmillan, 2005, pp. 84-101.
- (65) (With Y. Zhang) "Japan's R&D internationalization and its institutional environment", in M.J. Oesterle and J. Wolf (Eds.), *Internationalization and Institutions*, Wiesbaden: Gabler, 2005, pp. 297-330.
- (66) "MNCs, local clustering, and science-technology relationships", in G.D. Santangelo (Ed.), *Technological Change and Economic Catch-Up: The Role of Science and Multinationals*, Cheltenham: Edward Elgar, 2005, pp. 75-94.
- (67) "Financial and non-financial theories of international diversification", in A. Verbeke (Ed.), *Internalization, International Diversification and the MNE: Essays in Honor of*

Alan M. Rugman, Volume 11 in the Series on Research in Global Strategic Management, Amsterdam: Elsevier, 2005, pp. 59-73.

- (68) "Path-dependence and diversification in corporate technological histories", in C. Antonelli, D. Foray, B.H. Hall and W.E. Steinmueller (Eds.), *New Frontiers in the Economics of Innovation and New Technology: Essays in Honour of Paul David*, Cheltenham: Edward Elgar, 2006, pp. 118-157.
- (69) "Introduction", in J.A. Cantwell (Ed.), *The Economics of Patents*, Cheltenham: Edward Elgar, 2006, Volume I, pp. ix-xxxiii.
- (70) (With G.D. Santangelo) "Evolution of markets, technology and M&As", in B. Cassiman and M.G. Colombo (Eds.), *Mergers and Acquisitions: The Innovation Impact*, Cheltenham: Edward Elgar, 2006, pp. 28-36.
- (71) (With C.A. Noonan) "Exploring the characteristics of technology spillovers using patent citation data", in L. Piscitello and G.D. Santangelo (Eds.), *Do Multinationals Feed Local Development and Growth?*, Volume 22 in the Series on International Business and Management, Amsterdam: Elsevier, 2007, pp. 95-127.
- (72) (With H. Barnard), "Do firms from developing countries have to invest abroad? Outward FDI and the competitiveness of firms", in K.P. Sauvant (Ed.), *The Rise of Transnational Corporations from Emerging Markets: Threat or Opportunity?*, Cheltenham: Edward Elgar, 2008, pp. 55-85.
- (73) (With Y. Zhang) "The innovative MNC: the dispersion of creativity, and its implications", in S. Collinson and G. Morgan (Eds.), *Images of the Multinational Firm*, Chichester and Hoboken: John Wiley, 2009, pp. 45-67.
- (74) (With H. Barnard and T. Bromfield) "The role of indigenous firms in innovation systems in developing countries: the developmental implications of national champion firms' response to underdeveloped national innovation systems", in B.-Å. Lundvall, K.J. Joseph, C. Chaminade and J. Vang (Eds.), *Handbook of Innovation Systems and Developing Countries: Building Domestic Capabilities in a Global Setting*, Cheltenham: Edward Elgar, 2009, pp. 241-279.
- (75) (With J. Peeraly) "The development trajectory of a small island economy: the case of Mauritius", in D. Van Den Bulcke, A. Verbeke and W. Yuan (Eds.), *Handbook on Small Nations in the Global Economy: The Contribution of Multinational Enterprises to Economic Success*, Cheltenham: Edward Elgar, 2009, pp. 194-218.
- (76) (With F. Zhang) "Knowledge accession strategies and the spatial organization of R&D", in M. Andersson, B. Johansson, C. Karlsson and H. Lööf (Eds.), *Innovation and Growth: From R&D Strategies of Innovating Firms to Economy-Wide Technological Change*, Oxford and New York: Oxford University Press, 2012, forthcoming.
- (77) (With E. Amann) "Innovative firms in emerging market countries: an introduction", in E. Amann and J.A. Cantwell (Eds.), *Innovative Firms in Emerging Market Countries*, Oxford and New York: Oxford University Press, 2012, forthcoming.
- (78) (With H. Li) "China", in E. Amann and J.A. Cantwell (Eds.), *Innovative Firms in Emerging Market Countries*, Oxford and New York: Oxford University Press, 2012, forthcoming.

- (79) (With E. Amann) "Conclusions", in E. Amann and J.A. Cantwell (Eds.), *Innovative Firms in Emerging Market Countries*, Oxford and New York: Oxford University Press, 2012, forthcoming.
- (80) "Changes in global business", in A. Gambardella and L. Orsenigo (Eds.), *Has there been a Third Industrial Revolution in Global Business?*, Cambridge and New York: Cambridge University Press, 2012, forthcoming.

(v) **Invited papers in other journals:**

- (1) "La expansión de las empresas internacionales en una perspectiva histórica", *Informacion Comercial Española*, March 1987, pp. 9-17.
- (2) "Los factores determinantes de la internacionalización de las empresas", *Informacion Comercial Española*, October 1988, pp. 17-31.
- (3) "Współczesne teorie międzynarodowej działalności gospodarczej" (Contemporary theories of international economic activities, in Polish), *Sprawy Międzynarodowe*, Vol. 43, No. 4, 1990, pp. 91-100.
- (4) "La teoría de la competencia tecnológica de la producción internacional y sus consecuencias", *Informacion Comercial Española*, April 1991, pp. 83-111.
- (5) "Innovation in a global world", *New Economy*, Vol. 2, No. 2, Summer 1995, pp.66-70.
- (6) "La globalización de la tecnología", *Economia Industrial*, No. 305, October 1995, pp. 33-48.
- (7) (With R. Harding) "German globalisation: an end to the economic miracle?", *New Economy*, Vol. 5, No. 1, Spring 1998, pp. 59-61.
- (8) (With C. Bellak) "The impact of foreign direct investment on international trade", *Journal of International Relations and Development*, Vol. 3, No. 2, June 2000, pp. 120-127.

(vi) **Discussion papers not fully incorporated into other publications:**

- (1) (With J.H. Dunning) "Joint ventures and non-equity foreign involvement by British firms, with particular reference to developing countries: an exploratory study", *University of Reading Discussion Paper in International Investment and Business Studies*, No. 68, 1982, 43pp.
- (2) "The relevance of the classical economists to the theory of international production", *University of Reading Discussion Paper in International Investment and Business Studies*, No. 79, 1984, 35pp.
- (3) (With P.E.E. Tolentino) "Technological accumulation and Third World multinationals", *University of Reading Discussion Paper in International Investment and Business Studies*, No. 139, May 1990, 58pp.

- (4) "The state of the theory of foreign direct investment and the multinational enterprise - comments on a paper by E.M. Graham", *Università di Roma "La Sapienza" CIDEI Working Paper*, No. 32, January 1995, 8pp.
- (5) (With H.B. Andersen) "How firms differ in their types of technological competencies, and why it matters", *University of Manchester ESRC Centre for Research on Innovation and Competition Discussion Papers*, No. 25, January 1999, 39pp.

Ph.D. Supervision

Supervisor of fourteen completed Ph.D. theses at the University of Reading, ten of whom now hold academic appointments. Dr. Paz Tolentino was awarded her degree in July 1988 for a thesis on Third World multinationals. She completed it within three years, and won the 1989 Farmer Prize, an international award by the Academy of International Business for the best thesis in international business. A book derived from her thesis was published by Routledge, and she is now a Lecturer at Birkbeck College, London. Dr. Paul Campayne was an ESRC research linked student who was awarded his degree in July 1990 for a thesis on the international location of financial services by multinational banks, and he went on to a research post at the Bank of England. Dr. Nigel Driffield was another ESRC funded student who received his degree in July 1993 for his thesis on the employment effects of multinational firms, which has been published by Harwood, and he is now Professor of International Business at Aston University. Dr. Birgitte Andersen was awarded her degree in July 1997 for her thesis on technological change and the evolution of corporate innovation, and she is now Professor of the Economics and Management of Innovation at Birkbeck College, London. Dr. Giovanna Vertova obtained her degree in July 1998 for a thesis on the historical evolution of national innovation systems, and she is now an Assistant Professor at Bergamo University, Italy. Drs. Fai, Reganati and Santangelo all received their doctorates in July 1999. Dr. Felicia Fai completed her research on corporate technological diversification, and she is now a Lecturer at Bath University. Dr. Filippo Reganati's thesis was on models of international trade and production, and he is a Professor of Economics at Foggia University, Italy. Dr. Grazia Santangelo completed her thesis in just two and a half years on the topic of multi-technology, multinational corporations in European ICT industries, and she is now a Professor of Economics at Catania University, Italy. Dr. Astrid Bachmann obtained her degree in December 1999 for her thesis on technological leadership and diversification in British and German pharmaceutical firms, and she works now for a company in Germany. Dr. Odile Janne graduated in July 2001, having completed in 2000 her thesis on the geography of corporate technological development in Europe. She had won the prize in the EIBA (European International Business Academy) Doctoral Tutorial in International Business in 1996, in Stockholm; and she is currently a Lecturer at Birkbeck College, London. Dr. Camilla Noonan was awarded her degree in July 2002, for her thesis on the regional dynamics of technology sourcing in Germany, and she is now a Lecturer at University College, Dublin. She won the 2003 Farmer Prize, an international award by the Academy of International Business for the best thesis in international business. Dr Elena Kosmopoulou received her degree in July 2005, for her thesis on the determinants of international corporate technological diversification, and she is now an Assistant Professor at the University of Patras, Greece. Dr. Sabine Reim obtained her degree in July 2006, for her thesis on the globalisation of air transport networks, and she now works for a major airline. Dr. Chie Iguchi received her degree in July 2007 for her thesis on technology linkages between foreign-owned firms and their local suppliers in Malaysia, and she is now an Associate Professor in International Business at Keio University in Tokyo, Japan.

Supervisor of one completed Ph.D. thesis at the University of Mauritius. Dr. Jahan Peerally was a Fulbright scholar at Rutgers in 2004-05, a research visitor at the University of Western Ontario in 2005-06, as the winner of the EIBA Fellows Award to a Promising Young Scholar in International Business (sponsored by the Wandel and

Goltermann Foundation), and she is now an Assistant Professor in International Business at HEC Montréal (since September 2006).

Chair of the dissertation committee of nine completed Ph.D. dissertations at Rutgers University, eight of whom now hold academic positions. Dr. Hyejin Kim was awarded her degree in May 2006 for her Global Affairs thesis on international ethnic networks in business and intra-ethnic conflict amongst Koreans in China. She is now an Assistant Professor in the National University of Singapore. Dr. Helena Barnard received her degree in January 2007 for her Rutgers Business School (RBS) thesis on investment from less to more developed countries as a mechanism for capability upgrading in developing country firms. She is now an Associate Professor of International Business at the University of Pretoria, South Africa. Dr. Yanli Zhang was awarded her degree in May 2007 for her RBS thesis on international business connections, domestic inter-firm networks and the corporate technological development paths of Japanese firms. She is now an Associate Professor at Montclair State University. Dr. Kwaku Ampadu-Nyarkoh was awarded his degree in October 2008 for his RBS dissertation on the geography of knowledge sourcing by multinational corporation subsidiaries, in the case of the pharmaceutical industry. He is now an Assistant Professor at Berkeley College. Dr. Hyuk Kim was awarded his degree in May 2010 for his Global Affairs dissertation on the organizational strategy development of international firms in the pharmaceutical industry in the light of a stakeholder management perspective. He is now an Assistant Professor of International Business at Martin University, Indianapolis. Dr. Feng Zhang obtained her degree in October 2010 for her RBS dissertation on innovation in subsidiaries in emerging market economies in the international networks of technological accumulation of multinational corporations. She is now an Assistant Professor of International Business at St. Mary's University in San Antonio, Texas. Dr. Ranfeng Qiu was awarded her degree in October 2010 for her RBS dissertation on the role of general purpose technologies in the international innovation strategies of multinational corporations. She is now an Assistant Professor in California State University at San Bernadino. Dr. Arkadiusz Mironko received his degree in October 2011 for his Global Affairs dissertation on the influence of the geographic clustering of foreign subsidiaries on the economic development of regions in Poland. He is the Academic Director of MBA Programs in the School of Management in Erasmus University Rotterdam. Dr. Shengsheng Huang obtained his degree in January 2012 for his RBS dissertation on FDI spillovers, technology diffusion and capability accumulation in the Chinese passenger car industry. He is now an Assistant Professor at the University of Houston-Victoria, Texas.

Current advisor or chair of the dissertation committee of five students at Rutgers University, in Rutgers Business School.

Member of the Faculty Panel for the EIBA Doctoral Tutorial in International Business in 1988 (Berlin), 1989 (Helsinki), 1991 (Copenhagen), 1993 (Lisbon) and 2003 (Copenhagen); Chair of the Panel in 1990 (Madrid) and Co-Chair in 2004 (Ljubljana), 2005 (Oslo), 2006 (Fribourg), 2007 (Catania), 2008 (Tallinn) and 2009 (Valencia). Member of the Faculty Panel for the AIB Doctoral Consortium in 2003 (Monterey) and 2005 (Quebec City). Presented research seminar topics at the Aristotelian University of Thessaloniki, Greece, November 1991 (under the ERASMUS scheme). Expert commentator at the ESTER doctoral seminar on Technological Change and Economic Growth, Paris, September 1996. Member of the steering committee of ESTER (European graduate School for Training in Economic and social historical Research), 1997-2002. Gave lecture and research seminar series on the theme of

Globalisation and Technological Innovation to Italian doctoral students in Economics based in Engineering faculties, San Marino, April 1997; and a series of lectures on Corporate Technological Diversification and Internationalisation to doctoral students in economics at the Scuola Sant'Anna in Pisa, June 2000. Gave lecture at the Fondazione IRI Doctoral Summer School on 'Managing Global Business' in Volterra, June 2007.

Research Funding Awards Received

OECD Research Grant (with J.H.Dunning), 1983-84; to study new forms of involvement by British companies in the third world (£6,000).

EEC Research Grant, 1984-85; to study technological competition between European and US companies in the post-war period (£2,500).

Research Grant from the Istituto Affari Internazionali (with F. Sanna Randaccio of the University of Rome), 1985-86; to study recent direct investment by Italian companies in the USA (£12,500).

ESRC Research Linked Studentship (with J.H. Dunning), 1986-89; to support a research student working in the area of global competition, the location of activities by multinational companies, and UK industrial policy.

Consultant to the World Bank, January-May 1987, on their project on foreign direct investment in Africa.

ESRC Research Grant (with M.C. Casson, J.H. Dunning and R.D. Pearce), January 1988 - December 1989; to study global research strategies by industrial firms and international competitiveness (£76,460).

Research Grant from the Consiglio Nazionale delle Ricerche (with F. Sanna Randaccio and P.C. Padoan of the University of Rome) to investigate the long run structural determinants of the international economic policy of Italy, the UK, the USA, and Germany (£15,000).

Consultant to the United Nations Centre on Transnational Corporations, July 1988 - December 1989, to help direct the further development of a database of international investment and production statistics in cooperation with staff at the UNCTC.

Adviser to the Centro Europa Recherche project commissioned to investigate the improvement of foreign direct investment statistics in Italy, 1989.

Coordinator of a European Research Network involving researchers from six countries supported under the EC Commission's Stimulation Plan for Economic Science, October 1989 - September 1992; to undertake a project on multinational corporation activity and 1992 (ECU 45,000).

ESRC Research Grant, June 1990 - September 1993; to study the historical structure of innovative activity in the UK and Europe since 1890 (£74,790).

Grants to support the organisation of a seminar on multinationals and 1992 held in Cargèse, Corsica in May 1991 (FF20,000 from the Corsican Regional Institute for Trade, Innovation and Management; and £1,000 from Nestlé SA).

Grant from the University of Reading Research Endowment Trust Fund for research into the role of technology in the growth of large firms, April 1991 - July 1992 (£20,000).

- Grant from the Stockholm School of Economics (Institute of International Business) to support a joint research project on technology and the growth of Swedish firms, 1992 (£8,920).
- Grant from the European Science Foundation to organise a workshop in Reading on technology and the theory of the firm, May 1995 (FF 120,000).
- Grant as a contributor to a project on technology, economic integration and social cohesion (coordinated by Bart Verspagen of MERIT, University of Limburg), under the European Commission's Targeted Socio-Economic Research programme, January 1996 - December 1998 (ECU 25,000).
- Grant to support a post-doctoral research fellow (Simona Iammarino) on a project in Reading on international economic integration and technology transfer in the EU, under the European Commission's Training and Mobility of Researchers programme, December 1996 - May 1998 (ECU 68,768).
- Grant as a contributor to a project on dynamic capabilities, growth and long-term competitiveness of European firms (coordinated by Giovanni Dosi of the University of Rome "La Sapienza"), under the European Commission's Targeted Socio-Economic Research programme, April 1998 - February 2000 (ECU 30,000).
- Grant as a contributor to a project on assessing the impact of technological innovation and globalisation: the effects on growth and employment (coordinated by Jonathan Michie of Birkbeck College, London), under the European Commission's Key Action for Socio-Economic Research programme, March 2000 - March 2002 (EURO 42,300).
- Grant as a contributor to a project on the relationship between the technological strategies of multinational companies and national systems of innovation (coordinated by Jose Molero of Complutense University, Madrid), under the European Commission's Key Action for Socio-Economic Research programme, March 2000 - June 2002 (EURO 41,200).
- Grant as a contributor to a project on mergers and acquisitions and science and technology policy (coordinated by Geert Steurs in Brussels, with Massimo Colombo, Leo Sleuwagen and Reinhilde Veugelers), as part of the implementation of the European Commission's Common Basis for Science, Technology and Innovation Indicators, March 2000 - April 2002 (EURO 32,968).
- Grant as a contributor to a project on industrial districts' re-location processes: identifying policies in the perspective of EU enlargement (coordinated by Ruggiera Sarcina in Rome), under the European Commission's programme for Improving the Human Research Potential and the Socio-Economic Knowledge Base, September 2001 - August 2004 (EURO 87,960).
- Grant from the Rutgers Business School Research Resources Committee for research into the internationalization of corporate technology, July 2004 - June 2005 (\$6,000).
- Grant from the Rutgers Business School Research Resources Committee for research into knowledge flows between developed and developing nations, July 2005 - June 2006 (\$3,000).

Grant from the Rutgers Business School Blanche and Irwin Lerner Center for Pharmaceutical Management Studies for research into transnational technology networks in the pharmaceutical industry - investigating the challenges for firms and governments, January 2006 - December 2006 (\$5,000).

Grant from the Rutgers University Academic Excellence Fund to support the formation of an East Asian Business Center, March 2005 - June 2007 (\$75,000).

Grant from the Rutgers Business School Research Resources Committee for research into international knowledge sourcing in the pharmaceutical industry in the US and Germany, July 2006 - June 2007 (\$8,400).

Grant from Columbia University Earth Institute to support a research project on innovative firms in late industrializing countries, September 2007 - September 2008 (\$12,000).

Grant from the Academy of International Business (AIB) Secretariat at Michigan State University to support the work of the Program Chair for the AIB annual conference in Milan in June 2008 (\$10,000).

Citations

Social Sciences Journal Citations:

Citations of publications by John Cantwell in articles in recent issues of the social sciences journals, compiled using the ISI Social Sciences Citation Index (SSCI), in a search conducted through the Web of Science, on 20 July 2009. The citations listed are of cited sources published in the year in question that were authored (or co-authored) by John Cantwell, and the figures show the number of times that these sources were cited subsequently in the social sciences journals. It is estimated that in the SSCI as a whole 60% of the citing articles are in journals for which the coverage of searches of citing sources goes back from 2009 to January 1992 (the cited sources may of course date back earlier), while 40% of citing articles are in journals whose coverage does not go back that far.

1982	3
1983	0
1984	3
1985	2
1986	11
1987	34
1988	11
1989	244
1990	20
1991	125
1992	64
1993	55
1994	49
1995	132
1996	17
1997	23
1998	74
1999	144
2000	124
2001	54
2002	40
2003	55
2004	42
2005	54
2006	0
2007	7
2008	1
Overall	1,388
Annual average (over 27 years)	51.41

Notes: 1,388 citations were obtained by combining the results of searches under the author names Cantwell JA (316), Cantwell J (1,027) and Cantwell JC (6); an additional 39 citations were found by extracting the relevant citations under the co-authors Dunning JH (28), Bellak C (10), and Fai F (1). The single most cited source was the book *Technological Innovation and Multinational Corporations*, Basil Blackwell, 1989 (236 citations), and the second highest was the paper 'The globalisation of technology: what remains of the product cycle

model?', *Cambridge Journal of Economics*, vol. 19, 1995 (120 citations). The third highest source was Cantwell and Janne, 'Technological globalisation and innovative centres: the role of corporate technological leadership and locational hierarchy', *Research Policy*, vol. 28, 1999 (72 citations).