

## Curriculum Vitae

**Name:** George NORMAN

**Present Appointment:** William and Joyce Cummings Family Chair of Entrepreneurship and Business Economics, Tufts University, Medford, MA 02155.

**Nationality:** UK; Permanent Resident of the US.

### University Education:

1. 1968 - 72 University of Dundee, Dundee, Scotland.  
M.A. (Economics) First Class Honours.
2. 1972 - 75 King's College, University of Cambridge, Cambridge, England.  
Ph.D. Dissertation entitled: 'Economies of Scale, Transport Costs, and Location: a Case Study', submitted April, 1977, approved July 1977.

### University Posts:

1975 - 1984 Lecturer, Department of Economics, University of Reading;  
1984 - 1992 Tyler Professor of Economics and Head of Department, University of Leicester.  
1993 - 1995 Professor of Economics and Head of Department, Edinburgh University.  
1995 - 1998 Professor of Economics, Tufts University  
1998 - William and Joyce Cummings Family Chair of Entrepreneurship and Business Economics, Tufts University.

### Visiting Appointments:

April 1980 Visiting Research Fellow, Center for Operations Research and Econometrics, University of Louvain, Belgium.  
January-May 1985 Visiting Professor, Department of Economics, Washington University, St. Louis, U.S.A.  
April-May 1993 Visiting Research Fellow, Department of Surveying, University of Hong Kong, Hong Kong.  
September 1993 Visiting Research Professor, Universitat Pompeu Fabra, Barcelona, Spain.  
April 1995 Visiting Professor, Department of Economics, University of Warsaw, Poland.  
May 1999 Visiting Research Professor, Hong Kong University, Hong Kong.  
May 2001 Visiting Research Professor, Center for Operations Research and Econometrics, Louvain-la-Neuve, Belgium

January 2002-2006 Adjunct Professor, Fletcher School of Law and Diplomacy,  
Tufts University

**University Responsibilities:**

1. Director, Interdisciplinary Minor in Leadership Studies.
2. Executive Committee Member, Tufts University, 2006-2008 Chair, Tenure and Promotion Committee, Tufts University, 2003-2006
3. Director, Graduate Program in Economics, Tufts University, 1998-2001
4. Chair, Department of Economics, University of Leicester, 1985-1992.
5. Chair, Department of Economics, University of Edinburgh, 1993-1995.  
Associate Dean, Postgraduate Studies, Faculty Group of Law and Social Sciences, University of Edinburgh 1993-1995.  
Course Co-ordinator, Microeconomic Theory, Scottish Doctoral Programme and M.Sc. in Economics, 1993-1995.

**Teaching :**

Undergraduate -

principles of economics  
industrial organisation  
management and strategy  
economics, organization and management  
entrepreneurship

Postgraduate -

microeconomic theory  
game theory

**Other Responsibilities:**

1. Associate Editor:  
*Regional Science and Urban Economics*  
*Bulletin of Economic Research*
2. Editorial Board  
*BEPress Journals in Economic Analysis and Policy*
3. Referee for: *American Economic Review*, *Economic Journal*, *Economica*, *Review of Economic Studies*, *Journal of Industrial Economics*, *International Journal of Industrial Organization*, *European Economic Review*, *Journal of Regional Science*, *Regional Science and Urban Economics*, *Scottish Journal of Political Economy*, *Southern Economic Journal*, *RAND Journal*.
4. Senior Scholar, De Santis Center for Motion Picture Industry Studies.

**Refereed Articles:**

1. 'Pricing system, distribution of demand, and location', *Regional Studies*, Vol. 11, 1977, pp. 183-189.

2. 'The relationship between construction price and height', (with Flanagan, R.) *Chartered Surveyor Building and Quantity Surveying Quarterly*, Vol. 5, 1978, pp. 69-71.
3. 'The case for and problems of regional policy in Europe', *Journal of Agricultural Economics*, Vol. XXX, (1979), pp. 293-312.
4. 'Economies of scale in the cement industry', *Journal of Industrial Economics*, Vol. XVII, 1979, pp. 317-337.
5. 'Spatial competition and spatial price discrimination', *Review of Economic Studies*, Vol. XLVIII, 1981, pp. 97-111.
6. 'Uniform pricing as an optimal spatial pricing policy', *Economica*, Vol. 48, 1981, pp. 87-91.
7. 'Risk analysis: an extension of price prediction techniques for building work', (with Flanagan, R.) *Construction Papers*, Vol. 1, 1982, pp. 27-36.
8. 'An examination of the tendering patterns of individual building contractors', (with Flanagan, R.), *Building Technology and Management*, Vol. 20, 1982, pp. 25-29.
9. 'Making good use of low bids', (with Flanagan, R.) *Chartered Quantity Surveyor*, Vol. 4, 1982, pp. 226-227.
10. 'Dynamic market strategy under threat of competitive entry: an analysis of the pricing and production policies open to the multinational company', (with Nichols, N. K.) *Journal of Industrial Economics*, Symposium on Spatial Competition and Differentiated Markets, Vol. XXXI, 1982, pp. 153-174.
11. 'Spatial pricing with differentiated products', *Quarterly Journal of Economics*, Vol. XCVII, 1983, pp. 291-310.
12. 'A geometric note on some propositions in spatial pricing policy', *Economics Letters*, Vol. 12, Nos. 3-4, 1983, pp. 341-348.
13. 'The theory of multinational enterprise: an application to multinational office location', (with Dunning, J.H.) *Environment and Planning A*, Vol. 15, 1983, pp. 675-692.
14. 'An analysis of estimating performance', (with Flanagan, R.), *Construction Management and Economics*, Vol. 1, 1983, pp. 157-180.
15. 'Sealed bid auctions: an application to the building industry', (with Flanagan, R.), *Construction Management and Economics*, Vol. 3, 1983, pp. 145-161.
16. 'Intra-industry foreign direct investment: its rationale and trade effects', (with Dunning, J.H.) *Weltwirtschaftliches Archiv*, Vol. 120, 1984, pp. 522-540.
17. 'An anomaly in the service industry: the effect of entry on fees', (with Greenhut, M. L., Hung, C. S. and Smithson, C. W.) *Economic Journal*, Vol. 95, 1985, pp. 169-177.
18. 'Impacts on optimum location of different pricing strategies, market structures and customer distributions', (with Greenhut, M. L. and Mai C.-C.) *Regional Science and Urban Economics*, Vol. 16, 1986, pp. 329-351.

19. 'Spatial pricing with a general cost function: the effects of taxes on imports', (with Greenhut, M. L.) *International Economic Review*, Vol. 27, 1986, pp. 761-776.
20. 'The location choice of offices of multinational companies', (with Dunning, J.H.) *Environment and Planning A*, Vol. 19, 1987, pp. 613-631.
21. 'Life cycle costing and risk management', (with Flanagan, R., Kendell, A., and Robinson, G. D.), *Construction Management and Economics*, Vol. 5, 1987, pp. 553-571.
22. 'Competition, tacit collusion, and free entry', (with MacLeod, W. B. and Thisse, J.-F.) *Economic Journal*, Vol. 97, 1987, pp. 189-198.
23. 'Price discrimination and equilibrium in monopolistic competition', (with MacLeod, W. B. and Thisse, J.-F.) *International Journal of Industrial Organisation*, Vol. 6, 1988, pp. 429-446.
24. 'Monopolistic competition: some extensions from spatial competition', *Regional Science and Urban Economics*, Vol. 19, 1989, pp. 1-23.
25. 'Life cycle costing', *Property Management*, Vol. 8, 1990, pp. 344-356.
26. 'The ultimate challenge?' *Anglo-Japanese Journal*, Vol. 4, 1990, pp. 14-16.
27. 'On the basing point system', (with Benson, B. and Greenhut, M. L.) *American Economic Review*, Vol. 80, 1990, pp. 584-588.
28. 'On the basing-point system: reply', (with Benson, B. and Greenhut, M. L.), *American Economic Review*, Vol. 80, 1991, pp. 963-967.
29. 'Aspects of airline deregulation', (with Greenhut, J. and Greenhut, M.L.) *International Journal of Transport Economics*, Vol. XVIII, 1991, pp. 3-30.
30. 'Attitudes towards foreign products and international price competition', (with Neven, D. and Thisse, J. -F.) *Canadian Journal of Economics*, Vol. XXIV, 1991, pp. 1-11.
31. 'Basing point pricing and production concentration', (with Soper, J.B., Greenhut, M.L., and Benson, B.L.) *Economic Journal*, Vol. 101, 1991, pp. 539-556.
32. 'Conjectural variations and location theory', (with Greenhut, M.L.) *Journal of Economic Surveys*, Vol 6, 1992, pp 299-320.
33. 'Product differentiation, pricing policy and equilibrium', (with De Fraja, G.), *Journal of Regional Science*, vol 33, 1993, pp. 343-363.
34. 'Japanese foreign direct investment: the impact on Europe', *Economics and Business Education*, Vol. 1, 1993, pp. 9-17.
35. 'The optimal time of renovating a mall', (with Wong, K.C.) *The Journal of Real Estate Research*, Vol. 9, 1994, pp. 33-48.
36. 'Product selection by quantity-setting firms', (with Al-Nowaihi, A.) *International Journal of Industrial Organization*, Vol. 12, 1994, pp. 473-494.

37. 'Eastern European economic integration and foreign direct investment', (with Motta, M.) *Journal of Economics and Management Strategy*, Vol. 2, 1994, pp. 483-506.
38. 'Trade performance of the UK building materials and components industries', (with Flanagan, R. and Worrall, H.) *Engineering, Construction and Architectural Management*, Vol. 2, 1995 pp. 30-48.
39. 'A Short- and long-run theory of price under conditions of imperfect competition', (with Greenhut, M.L. and Greenhut, J.) *Aoyama Journal of Economics*, Vol. 46, 1995, pp. 34-68.
40. 'Economic evaluation of materials planning systems for construction', (with Wong, E.T.) *Construction Management and Economics*, Vol. 15, 1996, pp. 39-47.
41. 'Does economic integration cause foreign direct investment?' (with Motta, M.) *International Economic Review*, Vol. 37, 1996, pp. 757-783.
42. 'Product variety and welfare under tough and soft pricing regimes', (with Thisse, J.-F.) *Economic Journal*, Vol. 106, 1996, pp. 30-45.
43. 'Intervention analysis and overseas trade in UK construction related materials and components', (with Worrall and Flanagan, R.) *Construction Management and Economics*, Vol. 16, 1997, pp. 565-581.
44. 'The changing role of builders merchants in the construction supply chain', (with Agapiou, A., Clausen, L., Flanagan, R., and Notman, D.), *Construction Management and Economics*, Vol. 16, 1997 pp. 351-361.
45. 'The role of logistics in the materials flow process', (with Agapiou, A., Clausen, L., Flanagan, R., and Notman, D.), *Construction Management and Economics*, Vol. 16, 1997, pp. 131-137.
46. 'Horizontal mergers in spatially differentiated noncooperative markets: a comment', (with Pepall, L.), *Journal of Industrial Economics*, (electronic edition) 1999.
47. 'Technology choice and market structure: strategic aspects of flexible manufacturing' (with Thisse, J.-F.) *Journal of Industrial Economics*, Vol. 47, 1999, pp. 345-372.
48. 'Profitable mergers in a Cournot model of spatial competition', (with Pepall, L.), *Southern Economic Journal*, vol 66, 2000, pp. 667-681.
49. 'Spatial competition and location with mergers and product licensing', (with Pepall, L.), *Urban Studies*, vol. 37, 2000, pp. 451-470.
50. 'A fuzzy stochastic technique for project selection', (with Wong, E.C. and Flanagan, R.) *Construction Management and Economics*, Vol. 18, 2000, pp. 407-414.
51. 'Product competition and upstream-downstream relations', (with Pepall, L.) *Journal of Economics and Management Strategy*, Vol. 10, 2001, pp. 201-233.
52. 'The relative advantages of fixed versus flexible manufacturing technologies', *Regional Science and Urban Economics*, vol. 32, 2002, pp. 419-446.

53. 'Skill differentiation and wage disparity in a decentralized matching model of North-South trade', (with Abdel-Rahman, H.M. and Wang, P.) *Canadian Journal of Economics*, vol. 35, 2002, pp. 854-878.
54. 'Oligopoly deregulation and the taxation of commodities', (with Metcalf, G.), *Contributions to Economic Analysis and Policy*, Volume 2, 2003, Issue 1, Article 12.
55. 'Heterogeneous preferences and location choice with multi-product firms', (with Chisholm, D.C.), *Regional Science and Urban Economics*, vol. 34, 2004, pp. 321-329.
56. 'Product differentiation and the location of international production', (with De Fraja, G.), *Journal of Economics and Management Strategy*, vol. 13, 2004, pp. 151-170.
57. 'Knowledge spillovers, mergers and public policy in economic clusters' (with L. Pepall), *The Review of Industrial Organization*, vol. 25, 2004, pp. 155-174.
58. 'Pricing coordination failures and health care provider integration', (with K. Eggleston and L. Pepall), *Contributions to Economic Analysis and Policy*, Volume 3, 2004, Issue 1, Article 20.
59. 'Product differentiation, cost-reducing mergers, and consumer welfare', (with L. Pepall and D. Richards), *Canadian Journal of Economics*, vol. 38, 2005, pp. 1204-1223.
60. 'The customary international law game', (with J. Trachtman), *American Journal of International Law*, vol. 99, 2005, pp. 541-580.
61. 'When to exit a product: evidence from the U.S. motion-pictures exhibition market', *American Economic Review, Papers and Proceedings*, vol. 96, 2006, pp. 57-61.
62. 'Measuring the Shadow of the Future: An Introduction to the Game Theory of Customary International Law', (with Joel Trachtman), *Illinois Law Journal*, vol. 1, 2008, pp. 127-154.
63. 'Advertising, spillovers and market concentration' (with Lynne Pepall and Dan Richards), *American Journal of Agricultural Economics*, vol. 90, 2008, pp. 719-732.
64. 'Entrepreneurial first movers, brand-name fast seconds, and the evolution of market structure' (with Lynne Pepall and Dan Richards), *The B.E. Journal of Economic Analysis & Policy*: Vol. 8 : Iss. 1 (Contributions), Article 45.

**Authored and Edited Books:**

1. Norman, G. (1979), *Economies of Scale, Transport Costs, and Location*, Martinhus Nijhoff, Studies in Applied Regional Science, Vol. 16, Boston.
2. Dunning, J. H. and Norman, G. (1979) *Factors Influencing the Location of Offices of Multinational Companies*, Economists Advisory Group, London, England.
3. Flanagan, R. and Norman, G. (1983) *Life Cycle Costing for Construction*, Royal Institution of Chartered Surveyors, London, England.

4. Flanagan, R., Norman, G., Ireland, V., and Ormerod, R. (1985) *A Fresh Look at the UK and US Building Industries*, Building Employers' Confederation, London.
5. Norman, G. (1986) (ed), *Spatial Pricing and Differentiated Markets*, Pion Press, London.
6. Bennett, J., Flanagan, R. and Norman, G. (1987) *The Japanese Construction Industry*, Centre for Strategic Studies in Construction, University of Reading.
7. Greenhut, M. L., Norman, G. and Hung, C. S. (1987), *The Economics of Imperfect Competition: a spatial approach*, Cambridge, Cambridge University Press.
8. Flanagan, R., Norman, G., Meadows, J. and Robinson, G. (1989) *Life Cycle Costing: theory and practice*, Basil Blackwell Scientific Publishing, Oxford.
9. Gee, A. M. and Norman, G. (eds) (1992) *Market Strategy and Structure*, Harvester Wheatsheaf, London.
10. Norman, G. and La Manna, M. M. A. (eds) (1992), *The New Industrial Economics* Edward Elgar Publishing, London.
11. Flanagan, R. and Norman, G. (1993) *Risk Analysis for Construction*, Basil Blackwell Scientific Publishing, Oxford.
12. Norman, G. and Thisse, J.-F. (eds.) (1994) *The Economics of Product Differentiation*, Edward Elgar Publishing, London.
13. Greenhut, M.L. and Norman, G. (eds.) (1995) *The Economics of Location*, Edward Elgar Publishing, London.
14. Norman, G. (1999) (ed.), *The Economics of Price Discrimination*, Edward Elgar Publishing, London.
15. Pepall, L., Richards, D. and Norman G. (1999) *Industrial Organization: contemporary theory and practice*, Southwestern College Publishing, Cincinnati.
16. Norman, G. and Thisse, J.-F. (eds.) (2000) *Market Structure and Competition Policy*, Cambridge University Press, London.
17. Pepall, L., Richards, D. and Norman, G. (2002) *Industrial Organization: contemporary theory and practice*, (2<sup>nd</sup> edition) Southwestern College Publishing, Cincinnati.
18. Pepall, L., Richards, D. and Norman, G. (2005) *Industrial Organization: contemporary theory and practice*, (3<sup>rd</sup> edition) Southwestern College Publishing, Cincinnati.
19. Norman, G. (2008) *A Dictionary of Industrial Organization*, Edward Elgar Publishing, Cheltenham, UK
20. Norman, G. (ed.) (2008) *Recent Developments in Monopoly and Competition Policy*, Edward Elgar Publishing, Cheltenham, UK
21. Pepall, L., Richards, D. and Norman, G. (2008) *Industrial Organization: contemporary theory and empirical applications*, (4<sup>th</sup> edition) Blackwell Publishing, Oxford UK.

## Chapters in Books

1. Casson, M. C. and Norman, G. (1983) 'Pricing and sourcing strategies in a multinational oligopoly', Chapter 3 in Casson, M. C. (ed), *The Growth of International Business*, Allen and Unwin, London, Winchester, Mass., and Sydney.
2. Dunning, J.H. and Norman, G. (1983) 'Intra-industry production as a form of international economic involvement: an exploratory paper', Chapter 1 in Erdilek, A. (ed), *Multinationals as Mutual Invaders: Intra-industry Direct Foreign Investment*, Croom Helm, Beckenham, Kent.
3. Dunning, J.H. and Norman, G. (1986) 'Intra-industry investment', in Gray, P. M. (ed), *Uncle Sam as Host*, Research in International Business and Finance, Vol. 5, JAI Press, Connecticut.
4. Norman, G. (1986) 'Economic equity in the Economic Community: the problems of the second enlargement', in Lützel, P. M. (ed), *Western Europe in Transition, West Germany's Role in the European Community*, Nomos Verlagsgesellschaft, Baden-Baden.
5. Norman, G. (1986) 'Market strategy with variable entry threats', in Norman, G. (ed), *Spatial Pricing and Differentiated Markets*, Pion Press, London (pp. 103-124).
6. Flanagan, R. and Norman, G. (1989) 'Pricing policy', Chapter 9 in Hillebrand, P. (ed), *The Management of Construction Firms : aspects of theory*, MacMillan.
7. Hoar, D. and Norman, G. (1990) 'Life cycle cost management', Chapter 6 in Brandon, P.S. (ed), *Quantity Surveying Techniques : new directions*, Blackwell Scientific Publishing, Oxford.
8. Norman, G. (1992) 'Price discrimination', in Norman, G. and La Manna, M. M. A. (eds), *The New Industrial Economics*, Edward Elgar, London.
9. Charemza, W.W. and Norman, G. (1992) 'Mobile sellers and oligopoly: the empirical analysis of foreign exchange markets in Poland 1988-1989' in Wörgötter, A. (ed.) *Econometrics of Short and Unreliable Time Series*, Physica Verlag.
10. Norman, G. (1993) 'Of shoes and ships and shredded wheat, of cabbages and cars: the contemporary relevance of location theory', in Ohta, H. and Thisse, J.-F. (eds.) *Does Economic Space Matter?*, Macmillan, London.
11. Norman, G. (1995) 'Japanese foreign direct investment in Europe: causes and consequences', in Healey N. (ed.) *The Economics of the New Europe: from Community to Union*, Routledge, London.
12. Al-Nowaihi, A. and Norman, G. (1995) 'The principle of minimum differentiation revisited: Cournot versus Bertrand', Chapter 4 in Witteloostuijn (ed.) *Market Evolution: competition and cooperation*, Kluwer Academic Publishers, The Netherlands.
13. Al-Nowaihi, A. and Norman, G. (1995) 'Spatial competition by quantity setting firms: a comparison of simultaneous and two-stage quantity-location games', in, Greenhut, M.L. and Norman, G. (eds.) *The Economics of Location*, Edward Elgar Publishing.

14. Norman, G. and Thisse, J.-F. (2000) 'Should pricing policies be regulated when firms may tacitly collude?', in Norman, G. and Thisse, J.-F. (eds.) *Market Structure and Competition Policy*, Cambridge University Press, London.
15. Norman, G. (2008) 'Competition Policy: recent developments', Introduction to *Recent Developments in Monopoly and Competition Policy* (G. Norman, editor), Edward Elgar Publishing, Cheltenham, UK

**Recent Conference Papers:**

- Regional Science International, Chicago, November 2000, 'Heterogeneous preferences and location choice by multi-product firms'.
- IEFS, ASSA Meetings, New Orleans, January 2001, 'Internalization Revisited'.
- European Association for Research in Industrial Economics, Madrid, July 2002, 'Versioning, brand-stretching, and the evolution of e-commerce markets'.
- American Economic Association Annual Conference, Washington DC January, 2003 'Spatial Competition and Demand: an application to motion pictures'.
- Canadian Economic Association Annual Conference, Ottawa, May 2003 'Multimarket contact, price discrimination and consumer welfare'.
- International Industrial Organization Annual Conference, Boston, July, 2003 'Knowledge spillovers, mergers and public policy in economic clusters', 'Versioning, brand-stretching and the evolution of e-commerce', 'Spatial Competition and Demand: an application to motion pictures'
- Fourth Workshop on Motion Picture Industry Studies, De Santis Center, Florida Atlantic University, November 2003 'An exploration of empirical measures of spatial competition and product differentiation: an application to the US motion pictures industry'.
- International Industrial Organization Annual Conference, Chicago, April, 2004
- (a) "Product differentiation and film programming choice: measuring product similarity in a dynamic panel data setting"
  - (b) 'Advertising, Spillovers and Concentration'
- Fifth Workshop on Motion Picture Industry Studies, De Santis Center, Florida Atlantic University, November 2004 "Product differentiation and film programming choice: measuring product similarity in a dynamic panel data setting"
- Sixth Workshop on Motion Picture Industry Studies, De Santis Center, Florida Atlantic University, November 2005. "When to exit a product: evidence from the U.S. motion-pictures exhibition market" presented at the
- International Industrial Organization Conference, Atlanta, April 2005. 'When to exit a product: evidence from the U.S. motion-pictures exhibition market'
- American Economic Association Annual Meetings, Boston, January 2006 'When to exit a product: evidence from the US motion-picture industry'
- International Industrial Organization Annual Conference, Boston, April 2006 'Dynamic Product re-design: a duration analysis of movie exhibition',
- Stability in Competition: Hotelling's Legacy and its Future, Workshop, Center for Operations Research and Econometrics, Louvain-la-Neuve, Belgium, June 2006 'Product Differentiation and Film Programming Choice: do first run movie theatres show the same films?'

Seventh Workshop on Motion Picture Industry Studies, De Santis Center, Florida Atlantic University, November 2006 'Product Line Rivalry: how box office revenue cycles influence movie exhibition variety'.

International Industrial Organization Annual Conference, Savannah, April 2007 (a) 'Product Line Rivalry: how box office revenue cycles influence movie exhibition variety'.  
(b) 'Entrepreneurs, New Markets and Brand Extension'.

Leicester University Workshop on the Foreign Direct Investment, October 2007 'Contract theory and foreign direct investment.'

Eighth Workshop on Motion Picture Industry Studies, De Santis Center, Los Angeles, November 2007 'Spatial competition and agglomeration: an application to motion pictures'.

**Papers Under Review:**

'Product Differentiation and Film Programming Choice: do first run movie theatres show the same films?' (with Darlene Chisholm and Margaret McMillan) revise and resubmit to *Review of Economics and Statistics*

'Product Line Rivalry: how box office revenue cycles influence movie exhibition variety' (with Darlene Chisholm) submitted to *Journal of Industrial Economics*

**Research in Progress:**

“Oligopoly deregulation in general equilibrium: a tax neutralization result” (with G. Metcalf)

*NBER Working Paper Series*, WP 9416

“Mutual forbearance” (with E. Kutsoati).

"Shrouded Benefits, Brand Loyalty and Competition." (with L. Pepall and D. Richards)

“Antidumping duties, undertakings and foreign direct investment”

“Entrepreneurship and Intrapreneurship in motion picture production” (with D. Chisholm)