

**RUTGERS UNIVERSITY
RUTGERS BUSINESS SCHOOL Ph.D. PROGRAM**

GRADUATE COURSE IN HISTORY OF INTERNATIONAL BUSINESS

RBS Course Code 26:553:602:01

DGA Course Code 26:478:589:01

COURSE CONVENOR: PROFESSOR J.A. CANTWELL

(1 Washington Park, Room 1093, office hour Tuesday, 2:00-3.00pm

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Fall Semester 2011

Class Program and Reading List

Course outline description, and requirements of students

An outline description of the course in History of International Business:

This course examines the history of international business, with a particular focus upon the context and determinants of the growth over the last 150 years of the largest multinational corporations (MNCs). The course begins with the long-term historical background of globalization, and explains how globalization can be seen as either very old or very new depending upon how it is defined. The history of the largest MNCs and of the patterns of investment with which they have been associated are then outlined, and the history of scholarly thought on these issues is also discussed. Historical differences between groups of MNCs are demonstrated to have existed in terms of industry (with a focus on the role of the rise of science-based industries), nationality of origin, and the direction and extent of corporate technological diversification. The changing historical relationship between competition and cooperation within industries is considered with reference to both the inter-firm interdependencies brought about by technological complexity, and the rise and fall of international cartel arrangements. The course concludes with a look at the historical evolution of industry-university linkages, and a consideration of the role of new information and communications technology on the recent formation of more active international networks for knowledge creation and exchange within MNCs.

Requirements of students on the course:

1. To attend all weekly classes, and any other additional lectures as may be advised from time to time. The weekly classes are to be held on Tuesdays from 10:00am to 12:50pm, and the full schedule is set out below.
2. To complete a term paper by the end of the Fall semester, to be submitted in week 15 (by Tuesday, December 13th). Term papers should not normally exceed 2,500 words. The title for the term paper must be chosen from the titles given below, each associated with a particular class topic. The term paper must demonstrate an understanding of the issues raised in the relevant lecture, and make reference to the readings set for that topic. All students should read the chapters and articles indicated in the lists below, whether or not they are writing their term paper on that topic. The course has been designed as an integrated treatment of the subject with underlying connections between topics. The term paper should therefore also demonstrate an appreciation of how the answer to a specific question on a given topic fits into the broader context of the course. The course must not be regarded as a set of 11 separate topics that can be treated in isolation from one another. Thus, while students are welcome if they wish to undertake additional reading on the topic of their term paper, this must be related to or used to critique the central themes of the course in the term paper. Any such extra readings should not be used in the term paper merely to provide some other alternative essentially unrelated approaches to the topic, and in particular additional readings on a specific topic must not be regarded as a potential substitute for undertaking (and

where they are relevant, referring to) the readings for other topics that are also part of the course.

3. For Ph.D. students, and selected M.S. students, to give a presentation on their chosen topic to the class towards the end of the semester, prior to the submission of the paper itself at the end of the semester. Presentations can last for a maximum of 15 minutes when given by just one student, and for a maximum of 20 minutes when a joint presentation is given by two or more students (the allotted time then being divided equally between them). Presentations are to be prepared in PowerPoint, and to ensure that the necessary time limits are observed they must be contained in a maximum of 12 slides per student for a lone presenter or 8 slides per student in the case of joint presentations (excluding a title slide, if there is one), and all the text of each slide must be in at least a minimum font size of 24. Any presentation that does not conform to these guidelines may be stopped before it is completed. A hard copy of the slides to be used is to be given to the course convenor prior to the oral presentation. Topics will be allocated in week 1 (September 6th), and presentations will be scheduled for specific slots during the classes in weeks 13 or 14 (November 29th or December 6th). Where students give presentations, assessment will be 25% for the presentation, and 75% for the paper.
4. Those students that will give presentations are expected to consult the class materials for their topic ahead of the session to be held on that topic, and to prepare some questions on the lecture in order to begin a class discussion once that week's lecture has been completed.

Class topics

1. The history of globalization.
2. The history of multinational corporations (MNCs).
3. The history of foreign direct investment (FDI).
4. The history of thought on international business.
5. Large firms and the rise of science-based industry.
6. Comparing the major national groups of MNCs historically.
7. Corporate technological diversification and the growth of large firms.
8. Competition and cooperation: (i) managing technological complexity in industries.
9. Competition and cooperation: (ii) from interwar cartelization to post-war competition.
10. The historical evolution of industry-university linkages.
11. MNCs in the information and communications technology (ICT) age.

Detailed topic schedule, outlines and reading lists

Week 1, September 6th

1. The history of globalization. (An introduction pertinent to each of the remaining topics; students should treat this as essential background material, but there is no term paper corresponding to this topic.)

Findlay, R. (2002), "Globalization and the European economy: medieval origins to the industrial revolution", chapter 2 in H. Kierzkowski (ed.), *Europe and Globalization*, New York: Palgrave Macmillan.

O'Rourke, K. (2002), "Europe and the causes of globalization, 1790-2000", chapter 3 in H. Kierzkowski (ed.), *Europe and Globalization*, New York: Palgrave Macmillan.

Cantwell, J.A. (1989), "The changing form of multinational enterprise expansion in the twentieth century", chapter 3 in A. Teichova, M. Lévy-Leboyer and H. Nussbaum (eds.), *Historical Studies in International Corporate Business*, New York: Cambridge University Press.

Feenstra, R. (1998), "Integration of trade and disintegration of production in the global economy", *Journal of Economic Perspectives*, vol. 12, pp. 31-50.

Moore, K. and Lewis, D. (1999), "Conclusion: One form of capitalism?", chapter 10 in *Birth of the Multinational: 2000 Years of Ancient Business History - From Ashur to Augustus*, Copenhagen: Copenhagen Business School Press.

Week 2, September 13th

2. The history of multinational corporations (MNCs).

Paper Title: Assess the characteristics of the modern MNC that emerged around 1870, and comment on how it has evolved since that time.

Wilkins, M. (2001), "The history of multinational enterprise", chapter 1 in A.M. Rugman and T.L. Brewer (eds.), *The Oxford Handbook of International Business*, New York: Oxford University Press.

Wilkins, M. (2005), "Multinational enterprise to 1930: discontinuities and continuities", chapter 2 in A.D. Chandler and B. Mazlich (eds.), *Leviathans: Multinational Corporations and the New Global History*, New York: Cambridge University Press.

Jones, G.G. (2005), "Multinationals from the 1930s to the 1980s", chapter 3 in A.D. Chandler and B. Mazlich (eds.), *Leviathans: Multinational Corporations and the New Global History*, New York: Cambridge University Press.

Chandler, A.D. (1986), "Technological and organizational underpinnings of modern industrial multinational enterprise: the dynamics of competitive advantage", chapter 2 in A. Teichova, M. Lévy-Leboyer and H. Nussbaum (eds.), *Multinational Enterprise in Historical Perspective*, New York: Cambridge University Press.

Corley, T.A.B. (1989), "The nature of multinationals, 1870-1939", chapter 5 in A. Teichova, M. Lévy-Leboyer and H. Nussbaum (eds.), *Historical Studies in International Corporate Business*, New York: Cambridge University Press.

Week 3, September 20th

3. The history of foreign direct investment (FDI).

Paper Title: Evaluate the historical significance of FDI at the beginning of the twentieth century, whether it became more important during the twentieth century, and if so how this occurred.

Dunning, J.H. (1993), "The emergence and maturing of international production: an historical excursion", chapter 5 in *Multinational Enterprises and the Global Economy*, Reading, Mass.: Addison-Wesley.

Dunning, J.H. (1988), "Changes in the level and structure of international production: the last 100 years", chapter 3 in *Explaining International Production*, Winchester, Mass.: Unwin Hyman.

Wilkins, M. (1999), "Two literatures, two storylines: is a general paradigm of foreign portfolio and foreign direct investment feasible?", *Transnational Corporations*, vol. 8, no. 1, pp. 53-116.

Corley, T.A.B. (1994), "Britain's overseas investment in 1914 revisited", *Business History*, vol. 36, no. 1, pp. 71-88.

Svedberg, P. (1978), "The portfolio-direct composition of private foreign investment in 1914 revisited", *Economic Journal*, vol. 80, pp. 763-777.

Week 4, September 27th

4. The history of thought on international business.

Paper Title: Outline how international business theory derives from an integration of various branches of theory. Consider the extent to which alternative perspectives on international business in the past can be distinguished by the emphasis they place upon one branch of theory rather than others.

Dunning, J.H., Cantwell, J.A. and Corley, T.A.B. (1986), "The theory of international production: some historical antecedents", chapter 2 in P. Hertner and G.G. Jones (eds.), *Multinationals: Theory and History*, Brookfield, Vermont: Gower.

Dunning, J.H. (2001), "The key literature on IB activities, 1960-2000", chapter 2 in A.M. Rugman and T.L. Brewer (eds.), *The Oxford Handbook of International Business*, New York: Oxford University Press.

Jenkins, R. (1987), "Theoretical perspectives on the transnational corporation", chapter 2 in *Transnational Corporations and Uneven Development*, Methuen: New York.

Fieldhouse, D.K. (1986), "The multinational: a critique of a concept", chapter 1 in A. Teichova, M. Lévy-Leboyer and H. Nussbaum (eds.), *Multinational Enterprise in Historical Perspective*, New York: Cambridge University Press.

Penrose, E.T. (1989), "History, the social sciences and economic 'theory', with special reference to multinational enterprise", chapter 2 in A. Teichova, M. Lévy-Leboyer and H. Nussbaum (eds.), *Historical Studies in International Corporate Business*, New York: Cambridge University Press.

Week 5, October 24th

5. Large firms and the rise of science-based industry.

Paper Title: Examine the extent to which the dynamism of the largest firms over the last 100 years has depended upon the conduct of in-house research and development (R&D).

Hounshell, D.A. (1996), "The evolution of industrial research in the United States", chapter 1 in R.S. Rosenbloom and W.J. Spencer (eds.), *Engines of Innovation: US Industrial Research at the End of an Era*, Boston, Mass.: Harvard Business School Press.

Reich, L.S. (2002), Preface, Introduction (Chapter 1) and "Building the foundations of industrial research: American science, technology and industry in the 19th century" (chapter 2), in *The Making of American Industrial Research: Science and Business at GE and Bell, 1876-1926*, New York: Cambridge University Press, 2nd edition.

Dornseifer, B. (1995), "Strategy, technological capability, and innovation: German

enterprises in comparative perspective", in F. Caron, P. Erker and W. Fischer (eds.), *Innovations in the European Economy Between the Wars*, New York: de Gruyter.

Hughes, T.P. (1992), "The dynamics of technological change: salients, critical problems and industrial revolutions", chapter 3 in G. Dosi, R. Giannetti and P.A. Toninelli (eds.), *Technology and Enterprise in a Historical Perspective*, New York: Oxford University Press.

Beer, J.J. (1958), "Coal tar dye manufacture and the origins of the modern industrial research laboratory", *Isis*, vol. 49, pp. 123-131.

Week 6, October 11th

No class. Please note!!

Week 7, October 18th

6. Comparing the major national groups of MNCs historically.

Paper Title: Discuss the role of path-dependency in the historical evolution of MNCs when they are grouped by their nationality of origin.

Chandler, A.D. and Hikino, T. (1997), "The large industrial enterprise and the dynamics of modern economic growth", chapter 2 in A.D. Chandler, F. Amatori and T. Hikino (eds.), *Big Business and the Wealth of Nations*, New York: Cambridge University Press.

Mowery, D.C. and Nelson, R.R. (1999), "Explaining industrial leadership", chapter 9 in D.C. Mowery and R.R. Nelson (eds.), *Sources of Industrial Leadership: Studies of Seven Industries*, New York: Cambridge University Press.

Cantwell, J.A. (2000), "Technological lock-in of large firms since the interwar period", *European Review of Economic History*, vol. 4, no. 2, pp. 147-174.

Chandler, A.D. (1997), "The United States: engines of economic growth in the capital-intensive and knowledge-intensive industries", chapter 3 in A.D. Chandler, F. Amatori and T. Hikino (eds.), *Big Business and the Wealth of Nations*, New York: Cambridge University Press.

Jones, G.G. (1997), "Great Britain: big business, management, and international competitiveness in twentieth century Britain", chapter 4 in A.D. Chandler, F. Amatori and T. Hikino (eds.), *Big Business and the Wealth of Nations*, New York: Cambridge University Press.

Week 8, October 25th

7. Corporate technological diversification and the growth of large firms.

Paper Title: Compare and contrast the historical paths of corporate technological diversification taken by the largest firms in the chemical and the electrical equipment industries.

Cantwell, J.A. (2004), "An historical change in the nature of corporate technological diversification", chapter 10 in J.A. Cantwell, A. Gambardella and O. Granstrand (eds.), *The Economics and Management of Technological Diversification*, New York: Routledge.

Hounshell, D.A. (1995), "Strategies of growth and innovation in the decentralized Du Pont Company, 1921-1950", in F. Caron, P. Erker and W. Fischer (eds.), *Innovations in the European Economy Between the Wars*, New York: de Gruyter.

Hounshell, D.A. (1992), "Continuity and change in the management of industrial research: the Du Pont Company, 1902-1980", chapter 8 in G. Dosi, R. Giannetti and P.A. Toninelli (eds.), *Technology and Enterprise in a Historical Perspective*, New York: Oxford University Press.

Reich, L.S. (2002), "General Electric: the research process", chapter 5, and "AT&T: the research process", chapter 8 in *The Making of American Industrial Research: Science and Business at GE and Bell, 1876-1926*, New York: Cambridge University Press, 2nd edition.

Plumpe, G. (1995), "Innovation and the structure of the IG Farben", in F. Caron, P. Erker and W. Fischer (eds.), *Innovations in the European Economy Between the Wars*, New York: de Gruyter.

Week 9, November 1st

8. Competition and cooperation: (i) managing technological complexity in industries.

Paper Title: Critically evaluate the effects on large companies of inter-firm technological cooperation in industries characterized by technological complexity.

Hounshell, D.A. and Smith, J.K. (1988), "Du Pont R&D in the international sphere", chapter 10 in *Science and Corporate Strategy: Du Pont R&D, 1902-1980*, New York: Cambridge University Press.

Cantwell, J.A. and Barrera, M.P. (1998), "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, pp. 257-290.
- Erker, P. (1995), "The choice between competition and cooperation: research and development in the electrical industry in the Netherlands, 1920-1936", in F. Caron, P. Erker and W. Fischer (eds.), *Innovations in the European Economy Between the Wars*, New York: de Gruyter.
- Reich, L.S. (1977), "Research, patents and the struggle to control radio: a study of big business and the uses of industrial research", *Business History Review*, vol. 51, pp. 208-235.
- Hughes, T.P. (1987), "The evolution of large technological systems", in W.E. Bijker, T.P. Hughes and T. Pinch (eds.), *The Social Construction of Technological Systems: New Directions in the History and Sociology of Technology*, Cambridge, Mass.: MIT Press.
- Week 10, November 8th
9. Competition and cooperation: (ii) from interwar cartelization to post-war competition.
- Paper Title: Assess whether or not the purposes of inter-firm cooperation within industries altered after 1945, and if so how they were changed.
- Wengenroth, U. (1997), "Germany: competition abroad - cooperation at home, 1870-1990", chapter 5 in A.D. Chandler, F. Amatori and T. Hikino (eds.), *Big Business and the Wealth of Nations*, New York: Cambridge University Press.
- Schröter, H.G. (1997), "Small European nations: cooperative capitalism in the twentieth century", chapter 6 in A.D. Chandler, F. Amatori and T. Hikino (eds.), *Big Business and the Wealth of Nations*, New York: Cambridge University Press.
- Mowery, D.C. and Teece, D.J. (1996), "Strategic alliances and industrial research", chapter 3 in R.S. Rosenbloom and W.J. Spencer (eds.), *Engines of Innovation: US Industrial Research at the End of an Era*, Boston, Mass.: Harvard Business School Press.
- Schröter, H.G. (1996), "Cartelization and decartelization in Europe, 1870-1995: rise and decline of an economic institution", *Journal of European Economic History*, vol. 25, no. 1, pp. 129-153.
- Nussbaum, H. (1986), "International cartels and multinational enterprises", chapter 9 in A. Teichova, M. Lévy-Leboyer and H. Nussbaum (eds.), *Multinational Enterprise in Historical Perspective*, New York: Cambridge University Press.

Week 11, November 15th

10. The historical evolution of industry-university linkages.

Paper Title: Discuss the significance of industry-university linkages for the historical evolution of both science and technology.

Mowery, D.C. and Rosenberg, N. (1989), "The US research system before 1945", chapter 4 in *Technology and the Pursuit of Economic Growth*, New York: Cambridge University Press.

Rosenberg, N. and Nelson, R.R. (1996), "The roles of universities in the advance of industrial technology", chapter 2 in R.S. Rosenbloom and W.J. Spencer (eds.), *Engines of Innovation: US Industrial Research at the End of an Era*, Boston, Mass.: Harvard Business School Press.

Servos, J.W. (1980), "The industrial relations of science: chemical engineering at MIT", *Isis*, December, pp. 531-549.

Rosenberg, N. (1998), "Technological change in chemicals: the role of university-industry relations", chapter 7 in A. Arora, R. Landau and N. Rosenberg (eds.), *Chemicals and Long-Term Economic Growth: Insights From the Chemical Industry*, New York: John Wiley.

Swann, J.P. (1988), "The rise of industry-university interactions in biomedical research", chapter 2 in *Academic Scientists and the Pharmaceutical Industry: Cooperative Research in Twentieth Century America*, Baltimore: John Hopkins University Press.

Week 12, November 22nd

Note: the date and time of this week's class and the room booking may have to be rearranged owing to Thanksgiving this week.

11. MNCs in the information and communications technology (ICT) age.

Paper Title: Examine the relationship between the revolution in computing and communications, and the emergence of international networks for innovation within MNCs.

Cantwell, J.A. and Santangelo, G.D. (2000), "Capitalism, profits and innovation in the new techno-economic paradigm", *Journal of Evolutionary Economics*, vol. 10, nos. 1-2, pp. 131-157.

Cantwell, J.A. and Santangelo, G.D. (2002), "The new geography of corporate research

in information and communications technology (ICT)", *Journal of Evolutionary Economics*, vol. 12, nos. 1-2, pp. 163-197.

Santangelo, G.D. (2002), "Globalisation and innovation management", chapter 4 in *Innovation in Multinational Corporations in the Information Age*, Northampton, Mass.: Edward Elgar.

Freeman, C. and Louçã, F. (2001), "The emergence of a new techno-economic paradigm: the age of information and communication technology", chapter 9 in *As Time Goes By - From the Industrial Revolutions to the Information Revolution*, New York: Oxford University Press.

Zander, I. and Sölvell, Ö. (2002), "The phantom multinational", chapter 4 in V. Havila, M. Forsgren and H. Håkanson (eds.), *Critical Perspectives on Internationalisation*, New York: Pergamon.

Week 13, November 29th

Discussion of first set of student presentations.

Week 14, December 6th

Discussion of second set of student presentations.

Week 15, December 13th

No class; completion of term papers; submission of term papers due by Tuesday December 13th, via the Blackboard course site (under the tab "Assignment", you'll find an assignment named "Term paper", click "View/Complete", upload your paper there, and submit).