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University of Colorado
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Economics 8413: Seminar International Trade Theory

Class: TR 12:30-1:45 in Econ 5
Office hours: Tuesdays 9-10, Thursdays 2-3:30, and by appointment
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General Objective

The course provides an introduction to the basic theories and determinants of international trade and a welfare analysis of trade policies. While this is a seminar in Trade Theory, I will also explore the empirical validity of theories. My overall objective is to get you to the frontier of research in international trade, allowing you to come up and deal with a thesis topic. In the course we make use of general equilibrium theory and simple game theory. A very good understanding of microeconomic theory, as taught in the first year micro sequence, is crucial for mastering this class.

Exams, Problem Sets, etc.

There is one midterm and a final exam. The midterm will be in the second half of October. The final is scheduled for December 13, 2003, 7:30-10:00 am(!).

Problem sets will be assigned regularly. You are allowed to work in groups of 2-3 students, but you must submit your own solution.

You are asked to make a presentation in class of an unpublished paper or recently published article (no earlier than 2000). You must prepare a summary of the main points of the paper and ideas for future research in about 6-8 pages (your summary may include some key equations, but no complete proofs; focus on providing intuition for the most interesting results and ideas for future work). *The summary must be made available to the rest of us at the class meeting before your presentation.* An excellent source for working papers is the website of the National Bureau of Economic Research (NBER) at www.nber.org. More details on the format of the presentation etc. to follow.

I also ask you to write a referee report on an unpublished paper (2-4 pages) by *November 13*. The topic (not only the paper) must differ from the topic that you choose for your above presentation.

I strongly recommend that you attend the Department's weekly seminar, in particular when about international trade.

Your final grade will be calculated as follows: Midterm (27.5%), Final exam (27.5%), Referee report (10%), Problem Sets (15%), Presentation (20%).

Reading

Materials for this course come from various textbooks, handbooks, monographs, and articles. Many books are fairly old. One new textbook by

Robert Feenstra, Advanced International Trade: Theory and Evidence, Princeton University Press, 2003

will be published probably at the end of this year. You can download all individual chapters from Feenstra's webpage at <http://www.econ.ucdavis.edu/faculty/fzfeens/>

Copies of the articles or chapters which are indexed by * are deposited in the folder outside my office, if they cannot be downloaded from www.jstor.com. These articles are required reading. Note that some articles and book chapters overlap in content. Important: If you take articles from the folder for copying, please return them as soon as possible in order to allow others to do the same.

In the first week of class please read the article

* Paul Krugman, Growing World Trade: Causes and Consequences, Brookings Papers on Economic Activity 1, 1995, pp. 327-362,

The other articles on the reading list are important supplement reading and provide material for those who have more interest in the area. There are advanced undergraduate textbooks, for example by Ethier or Caves/Frankel/Jones, that you might find helpful, in particular to learn about institutional aspects of international trade.

Books on International Trade (Classics and those you should know about)

Kar-yiu Wong, *International Trade in Goods and Factor Mobility*, MIT Press, 1995.

A. Dixit and V. Norman, *Theory of International Trade*, Cambridge University Press, 1980.

A. Woodland, *International Trade and Resource Allocation*, North Holland, 1982.

J.N. Bhagwati and T.N. Srinivasan, *Lectures on International Trade*, M.I.T. Press, 1983.

J.N. Bhagwati (ed.), *International Trade: Selected Readings*, M.I.T. Press, 1981.

R.W. Jones and P. Kenen (ed.), *Handbook of International Economics*, Vol. 1, North Holland, 1984.

E. Helpman and P. Krugman, *Market Structure and Foreign Trade*, Harvester Press, 1985.

E. Helpman and P. Krugman, *Trade Policy and Market Structure*, M.I.T. Press, 1989.

E. Helpman and A. Razin, *A Theory of International Trade under Uncertainty*, Academic Press, 1978.

H. Kierzkowski (ed.), *Monopolistic Competition and International Trade*, Oxford University Press, 1984.

Abbreviations: American Economic Review (AER), Journal of International Economics (JIE), Quarterly Journal of Economics (QJE), Journal of Political Economy (JPE)

Articles and Topics

I. Classic Theory of International Trade

1. Ricardian Model

* Feenstra (2003), chapter 1

E.Helpman/A.Razin (1978): ch. 2

* R. Dornbusch and S. Fisher, and P.A. Samuelson (1977): Comparative Advantage, Trade and Payments in a Ricardian Model with a Continuum of Goods, *AER* 67, 823-839.

K. Matsuyama (2000): A Ricardian Model with a Continuum of Goods under Nonhomothetic Preferences: Demand Complementarities, Income Distribution, and North-South Trade, *JPE* 108, 1093–1120.

2. Heckscher-Ohlin Model

*Feenstra (2003), chs. 1+2

K. Wong (1995): ch.2

E. Helpman/A.Razin (1978): ch.2

* R.W. Jones (1965): The Structure of Simple General Equilibrium Models, *JPE*, Reprinted in Bhagwati, *Readings*.

M. Mussa (1979): The Two-Sector Model in terms of its Dual: A Geometric Approach, *JIE*, reprinted in Bhagwati, *Readings* .

W. Stolper and P. Samuelson (1941): Protection and real wages, *Review of Economic Studies* 9, 58-73.

3. Ricardo-Viner-Model or Specific-Factors Model

* A. Dixit and V.Norman (1980): 38-43, 102-106.

J. Bhagwati and T.N. Srinivasan (1983): ch.8.

P. Neary (1978): Short Run Capital Specificity and the Pure Theory of International Trade, *Economic Journal* 88, 488-510.

4. Generalizations

* Feenstra (2003), ch. 3

K. Wong (1995): ch.3.

A. Dixit and V. Norman (1980): ch. 4.

J. Bhagwati and T.N. Srinivasan (1983): ch. 7.

W. J. Ethier (1984): *Handbook of International Economics*, ch. 3.

* A.V. Deardorff (1979): Weak Links in the Chain of Comparative Advantage, *JIE*, Reprinted in Bhagwati, *Readings*.

* A.V. Deardorff (1980): The general validity of the law of comparative advantage, *JPE* 88, 941-957.

J. Vanek (1968): The factor proportions theory: The N-factor case, *Kyklos* 21, 749-756.

5. Testing Trade Theories

*Feenstra (2003), ch. 2+3

A.V. Deardorff (1984): Testing Trade Theories and Predicting Trade Flows, in: *Handbook of International Economics*, ch. 10.

* E.E. Leamer (1980): The Leontief paradox, reconsidered, *Journal of Political Economy* 88, 495-503.

* H.P. Bowen, E.E. Leamer, and L. Sveikauskas (1987): Multicountry, multifactor tests of the factor abundance theory, *American Economic Review* 77, 791-809.

* D. Trefler (1993): International factor price differences: Leontief was right!, *JPE* 101, 961-987.

R.A. Brecher E.U. Choudhri (1993): Some empirical support for the Heckscher-Ohlin model of production, *Canadian Journal of Economics* 26, 272-285.

D. Trefler (1995): The case of the missing trade and other mysteries, *AER* 85, 1029-1046.

6. Gains from Trade

* Feenstra, ch. 6

* Spector, D., 2001. Is it possible to redistribute the gains from trade using income taxation? *JIE* 55, 441-460.

* Guesnerie, R., 2001. Second Best Redistributive Policies: The Case of International Trade. *Journal of Public Economic Theory* 3, 15-25.

Naito, H., 1996. Tariffs and Production Subsidies as Devices to Relax the Incentive Problem of a Progressive Income Tax System. University of Michigan, RSIE Working Paper 391.

K. Wong (1995): ch.8.

P.A. Samuelson (1962): The Gains from International Trade Once Again, *Economic Journal*, Reprinted in Bhagwati, *Readings*.

A. Dixit and V. Norman (1980): ch. 3.

M.C. Kemp and Henry Y. Wan (1986): Gains from trade with and without lump-sum compensation, *Journal of International Economics* 21, 99-110.

A. Dixit and V. Norman (1986): Gains from trade without lump-sum compensation, *JIE* 21, 111-122.

D.G. Newbery and J.E. Stiglitz (1984): Pareto inferior trade, *Review of Economic Studies* 51, 1-12.

II. Intra-Industry Trade, Trade in Intermediate Goods, Scale Economies, and Imperfect Competition

1. External Economies of Scale

K. Wong (1995): ch. 5.

E. Helpman (1984): *Handbook of International Economics*, ch. 7.

* E. Helpman and P. Krugman (1985): ch. 3

J. Markusen and J.R. Melvin (1981): Trade, Factor Prices and Gains from Trade with Increasing Returns to Scale, *Canadian Journal of Economics* 14, 450-469.

W.J. Ethier (1982): Decreasing Costs in International Trade and Frank Graham's Argument for Protection, *Econometrica* 50, 1243-1268.

W.J. Ethier (1982): National and international returns to scale in the modern theory of international trade, *American Economic Review* 72, 389-405.

2. Trade in Intermediate Inputs

* Feenstra, (2003), ch. 4

R.C. Feenstra and G.H. Hanson (1996): Globalization, outsourcing, and wage inequality, *AER* 86, 240-245.

3. Differentiated Products and Gravity Equation

*Feenstra (2003), ch. 5

E. Helpman and P. Krugman (1985): ch. 6.

K. Wong (1995): ch. 6.

* P. Krugman (1979): Increasing Returns, Monopolistic Competition, and International Trade, *JIE*, Reprinted in Bhagwati, Readings.

* P.R. Krugman (1981): Intraindustry specialization and the gains from trade, *JPE* 89, 959-973.

* D. Hummels and J. Levinsohn (1995): Monopolistic Competition and international trade: Reconsidering the evidence, *Quarterly Journal of Economics*, 799-836.

S.J. Evenett and W. Keller (2002): On Theories Explaining the Success of the Gravity Equation, *JPE* 110, 281-316.

E. Helpman (1981): International trade in the presence of product differentiation, economies of scale and monopolistic competition, *Journal of International Economics* 11, 305-340.

A. Dixit and J.E. Stiglitz (1977): Monopolistic Competition and Optimum Product Variety, *AER*, 297-308.

K. Lancaster (1979): Intra-Industry Trade under Perfect Monopolistic Competition, *JIE*, 151-175.

4. Oligopoly

Wong (1995): ch. 7.

J.A. Brander (1981): Intra-industry trade in identical commodities, *JIE* 11, 1-14.

* Brander and Krugman (1983): A Reciprocal Dumping' Model of International Trade, *JIE* 15, 313-321.

Markusen (1981): Trade and the Gains from Trade with Imperfect Competition, *JIE* 11, 531-551.

* D.M. Bernhofen (1998): Intra-Industry Trade and Strategic Interaction: Theory and Evidence, *JIE* 45, 77-96.

III. Trade Policy

1. Tariffs

* Feenstra (2003), ch. 7

Wong (1995): ch. 10.

Dixit and Norman (1980): 149-163.

S.L. Baier and J. Bergstrand (2001): The Growth of World Trade: Tariffs, Transport Costs, and Income Similarity, *JIE* 53, 1-27.

H.G. Johnson (1953/4): Optimum tariffs and retaliation, *Review of Economic Studies* 21, 142-153.

R. E. Baldwin (1969): The case against infant-industry tariff protection, *Journal of Political Economy* 77, 295-305.

Dixit (1985): Tax policy in open economies, *Handbook of Public Economics*, ch. 6.

J. Eaton and G. Grossman (1985): Tariffs as Insurance: Optimal Commercial Policy when Domestic Markets are Incomplete, *Canadian Journal of Econ.*, May, 258-272.

* R. Staiger and G. Tabellini (1987): Discretionary Trade Policy and Excessive Protection, *AER* 77, December, 823-837.

J. Harrigan (1993): OECD imports and trade barriers in 1983, *Journal of International Economics* 35, 91-111.

G.M. Grossman and H. Horn (1988): Infant-industry protection reconsidered: The case of informational barriers to entry, *Quarterly Journal of Economics* 103, 767-787.

A. Dixit (1987): Trade and Insurance with moral hazard, *JIE* 23, 201-220.

A. Dixit (1989): Trade and insurance with adverse selection, *Review of Economic Studies* 56, 235-248.

2. Quotas

* Feenstra (2003), ch. 8

Bhagwati and Srinivasan (1983): Ch. 10.

* Helpman and Krugman (1989): ch. 3.

K. Krishna (1989): Trade Restrictions as Facilitating Practices, *JIE* 26, 251-270.

C. Rodriguez (1974): The non-equivalence of tariffs and quotas under retaliation, *JIE*, 295-298; Reprinted in Bhagwati, *Readings*.

J.R. Melvin (1986): The Non-Equivalence of Tariffs and Quotas, *AER* 76, 1131-1134.

J.A. Levinsohn (1989): Strategic trade policy when firms can invest abroad: when are tariffs and quotas equivalent?, *Journal of International Economics* 27, 129-146

3. Strategic Trade Policy

* Feenstra (2003), ch. 8

Wong (1995): ch. 12.

Helpman/Krugman (1989): ch. 5

* J.A. Brander and B. Spencer (1985): Export Subsidies and International Market Share Rivalry, *JIE*, 83-100.

J. Eaton and G. Grossman (1986): Optimal Trade and Industrial Policy under Oligopoly, *QJE* 101, 383-406.

A.J. Venables (1985): Trade and trade policy with imperfect competition: The case of identical products and free entry, *Journal of International Economics* 19, 1-19.

I.J. Horstmann and J.R. Markusen (1986): Up the average cost curve: Inefficient entry and the new protectionism, *Journal of International Economics* 20, 225-247.

E. Janeba (1998): Tax competition in imperfectly competitive markets, *J. of International Economics* 44, 135-153.

A. Dixit (1984): International Trade Policy for oligopolistic Industries, *Economic Journal* 94, supplement, 1-16.

A.R. Dick (1993): Strategic trade policy and welfare. The empirical consequences of cross-ownership, *Journal of International Economics* 35, 227-249.

J.I. Bulow, J.D. Geanakoplos, P.D. Klemperer (1985): Multimarket oligopoly: Strategic Substitutes and Complements, *Journal of Political Economy* 93, 488-511.

4. Political Economy

* Grossman and Helpman, 2002, Interest Groups and Trade Policy, Princeton University Press, ch. 6.

M.J. Hiscox (2002), International Trade and Political Conflict, Princeton University Press.

D. Rodrik (1995), Political Economy of Trade Policy, *Handbook of International Economics*, Vol. III.

* Grossman, G. M. and E. Helpman, 1994. Protection for Sale. *American Economic Review* 84, 833-850.

Grossman, G. M. and E. Helpman, 1995. Trade Wars and Trade Talks. *JPE* 103, 675-708.

R. Findlay and S. Wellisz (1982): Endogenous Tariffs, the Political Economy of Trade Restrictions, and Welfare, in J. Bhagwati (ed.), Import Competition and Response, University of Chicago Press.

A.L. Hillman (1982): Declining industries and political-support protectionist motives, *AER* 72, 1180-1187.

A.L. Hillman and H. Ursprung (1988): Declining industries, foreign interests, and international trade policy, *AER* 78, 729-745.

W. Mayer (1984): Endogenous Tariff Formation, *AER* 74, 970-985.

5. Regionalism and Multilateralism

Ethier, W.J., 1998. Regionalism in a Multilateral World. *Journal of Political Economy* 106, 1214-1245.

* Levy, P., 1997. A Political-Economic Analysis of Free-Trade Agreements. *AER* 87, 506-519.

* Maggi, G. and A. Rodriguez-Clare, 1998. The Value of Trade Agreements in the Presence of Political Pressures. *Journal of Political Economy* 106, 574-601.

* McLaren, J., 1997. Size, Sunk Costs, and Judge Bowker's Objection to Free Trade. *AER* 87, 400-420.

Perroni, C. and J. Whalley, 1996. How Severe is Global Retaliation Risk under Increasing Regionalism? *AER* 86, 57-61.

G. Maggi (1999): The Role of Multilateral Institutions in International Trade Cooperation, *AER* 89, 190-214.

K. Bagwell and R.W. Staiger (1999): An Economic Theory of GATT, *AER* 89, 215-248.

K. Bagwell and R.W. Staiger (forthcoming2003): The Economics of the World Trading System, MIT Press.

* Grossman and Helpman (1995): The politics of free trade agreements, *AER* 85, 667-690.

Frenkel, J.A., Stein, E. and S. Wei, 1996. Regional Trading Agreements: Natural or Supernatural?. *American Economic Review*, Paper and Proceedings, 86, 52-56.

IV. Special topics (depending on time and your interests)

1. Trade and Wage Inequality

D. Rodrik (1997): *Has Globalization gone too far?*, Institute for International Economics, Washington D.C.(for presentation: chapt. 4, incl. Appendix)

R.B. Freeman (1995): Are your wages set in Beijing?, *Journal of Economic Perspectives* 9, 15-32.

J.D. Richardson (1995): Income inequality and trade: How to think, What to conclude, *Journal of Economic Perspectives* 9, 33-55.

A. Wood (1995): How trade hurt unskilled workers, *Journal of Economic Perspectives* 9, 57-80.

G.J. Borjas and V.A. Ramey (1995): Foreign competition, market power, and wage inequality: Theory and Evidence, *Quarterly Journal of Economics* 110, 1075-

E. Janeba (2003): Does Trade Increase Inequality when Skills are Endogenous? *Review of International Economics*, forthcoming.

2. Trade and the Environment

B. Copeland and M.S. Taylor (2003): *Trade and the Environment: Theory and Evidence*, Princeton University Press.

M. Rauscher (1997): *International Trade, Factor Movements, and the Environment*, Oxford University Press..

J.R. Markusen (1975): International externalities and optimal tax structures, *J. Int. Economics* 5, 15-29.

S. Barrett (1994): Strategic environmental policy and international trade, *Journal of Public Economics* 54, 325-338.

B. Copeland (1994): International trade and the environment: Policy reform in a polluted small open economy, *Journal of Environmental Economics and Management* 26, 44-65.

B. Copeland and M.S. Taylor (1994): North-South Trade and the Environment, *QJE* 109, 755-787.

B. Copeland and M.S. Taylor (1995): Trade and transboundary pollution, *American Economic Review* 85, 716-737.

J. A. Brander and M.S. Taylor (1997): International trade and open access renewable resources: The small open economy case, *Canadian Journal of Economics* 30, 526-552.

W. Antweiler, B.R. Copeland, and M.S. Taylor (2001): Is free trade good for the environment? *AER*

3. Multinational Firms

Feenstra (2003), ch. 10

J. Markusen (2002): *Multinational Firms and the Theory of International Trade*, MIT Press.

D. Carr and J. Markusen, and K. Maskus (2001): Estimating the Knowledge-Capital Model of the Multinational Enterprise, *American Economic Review* 91, 693-708.

J. Markusen (2001): Contracts, Intellectual Property Rights, and Multinational Investment in Developing Countries, *Journal of International Economics* 53, 189-204.

J. Markusen and A. Venables (1999): Foreign Direct Investment as a Catalyst for Industrial Development, *European Economic Review* 43, 335-356.

J. Markusen and A. Venables (1998): Multinational Firms and the New Trade Theory, *Journal of International Economics*, 46, 183-204.

J. Markusen (1995): Incorporating the Multinational Enterprise into the Theory of International Trade, *Journal of Economic Perspectives* 9, 169-189.

4. Agglomeration

P. Krugman and A. Venables (1995): Globalization and the Inequality of Nations, *QJE* 110, 857-880.

P. Krugman (1991): Increasing returns and economic geography, *Journal of Political Economy* 99, 483-499.

Baldwin et al. (2003): *Economic Geography and Public Policy*, Princeton University Press.

5. Trade, Distance and Transportation Costs

J. Harrigan and with Carolyn Evans (200?): Distance, Time, and Specialization, mimeo.

D. Hummels and Alexandre Skiba (2003): Shipping the Good Apples Out? An Empirical Confirmation of the Alchian Allen Conjecture, NBER Working Paper #9023.

D. Hummels (2001): Time as a Trade Barrier, mimeo, Purdue University.

D. Hummels (2001): Toward A Geography of Trade Costs, mimeo, Purdue University