

Economics 360
INTERNATIONAL TRADE THEORY

OVERVIEW

The course centers on theoretical modeling of international trade and investment, along with empirical tests of models and evaluation of institutional arrangements affecting international transactions. Topics include basic determinants of trade, effects of trade on economic welfare and income distribution, the interaction of trade and economic growth, tariff and non-tariff protection, preferential trading, international technology transfer, and direct foreign investment. In addition to the regular lectures, the course includes a weekly seminar-style meeting to discuss recent trade policy issues. Each meeting will focus on specific material in the Irwin text (see below).

The prerequisite is completion of Econ 301a and 301b or permission of instructor. The course is intended primarily for Ph.D. students in the International Business School. However, it may also be a suitable elective for undergraduate or master's students with strong preparation in microeconomics and sufficient background in mathematics (at least multivariate calculus and linear algebra).

COURSE REQUIREMENTS

Course material will be covered through assigned readings, lectures, problem sets, and class discussion. Each class member will take responsibility for presenting one segment of the course material. Grades will be determined by these presentations (10%), problem sets (10%), participation in trade-policy discussion group (10%), performance on two cumulative exams (50%), and a term paper (20%).

If you are a student with a documented disability on record at Brandeis University and wish to have reasonable accommodations made for you in this class, please see Prof. McCulloch immediately. Accommodations are not provided retroactively.

ACADEMIC HONESTY

Students are expected to be honest in all academic work. The University policy on academic honesty is distributed annually as section 5 of the *Rights and Responsibilities* handbook. Instances of alleged dishonesty will be forwarded to the Office of Campus Life for possible referral to the Student Judicial System. Potential sanctions include failure in the course and suspension from the University. In Econ 360, students are encouraged to cooperate in most course work, including problem sets, but each student must *write up* answers to problem sets *individually*. Copying another student's answer is never acceptable. Please consult Prof. McCulloch if you have any questions about course expectations.

COURSE READINGS

The main texts for the course are Robert C. Feenstra, *Advanced International Trade* (Princeton University Press, 2004), and Douglas Irwin, *Free Trade under Fire*, 2nd edition (Princeton University Press, 2005). Other course readings include classic papers, recent journal articles, and unpublished working papers. Most of the journal articles are available at the library or on-line; other papers can be borrowed from Prof. McCulloch. All papers central to class discussions will be available in advance.

Recommended readings are listed for each topic, with the most central indicated by an asterisk (*). In addition to the specific readings for each topic, a number of books may prove useful as general references for those seeking background material, alternative approaches, or discussions of topics not covered in the course. These general references are listed below.

Students who have not previously studied international economics may find it helpful to supplement assigned readings with a more elementary and intuitive account in an undergraduate textbook. A suitable textbook can be borrowed from Prof. McCulloch for use during the semester.

GENERAL REFERENCES

James E. Anderson and J. Peter Neary, *Measuring the Restrictiveness of International Trade Theory*, MIT Press, 2005.

Jagdish N. Bhagwati, ed., *International Trade: Selected Readings* (first edition). MIT Press, 1981.

Jagdish N. Bhagwati, ed., *International Trade: Selected Readings* (second edition). MIT Press, 1987.

Jagdish N. Bhagwati, Arvind Panagariya, and T.N. Srinivasan, *Lectures on International Trade* (second edition). MIT Press, 1998.

Richard E. Caves, *Multinational Enterprise and Economic Analysis* (second edition). Cambridge University Press, 1996.

Richard E. Caves and Harry G. Johnson, eds., *Readings in International Economics*. Richard D. Irwin, 1968.

W. Max Corden, *Trade Policy and Economic Welfare* (second edition). Oxford University Press, 1997.

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

Gene M. Grossman, ed., *Imperfect Competition and International Trade*. MIT Press, 1994.

Gene M. Grossman and Elhanan Helpman, *Innovation and Growth in the Global Economy*. MIT Press, 1993.

Gene M. Grossman and Kenneth Rogoff, *Handbook of International Economics*, Volume III. Elsevier North-Holland, 1995.

Elhanan Helpman and Paul R. Krugman (a), *Market Structure and Foreign Trade*. MIT Press, 1985.

Elhanan Helpman and Paul R. Krugman (b), *Trade Policy and Market Structure*. MIT Press, 1989.

Ronald W. Jones and Peter R. Kenen, *Handbook of International Economics*, Volume 1. North-Holland, 1984.

Edward E. Leamer, *Sources of International Comparative Advantage*. MIT Press, 1984.

Edward E. Leamer, ed., *International Economics*. Worth, 2001.

James R. Markusen, James R. Melvin, William H. Kaempfer, and Keith E. Maskus, *International Trade: Theory and Evidence*. McGraw-Hill, 1995.

James Meade, *Trade and Welfare*. Oxford University Press, 1955.

Neil Vousden, *The Economics of Trade Protection*. Cambridge, 1990.

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

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

READINGS BY TOPIC

1. General equilibrium with constant returns and perfect competition.

*Feenstra, Chapters 1 and 2.

*Ronald Jones, "The Structure of Simple General Equilibrium Models," *Journal of Political Economy*, December 1965. Also in Bhagwati (1981).

*Michael Mussa, "The Two-Sector Model in Terms of Its Dual: A Geometric Exposition," *Journal of International Economics*, November 1979. Also in Bhagwati (1987).

*Paul A. Samuelson, "International Factor-Price Equalization Once Again," *Economic Journal*, June 1949.

Bhagwati and Srinivasan, Chapters 5-7, 33.

Dixit and Norman, Chapters 2-3.

Edward Leamer, "The Heckscher-Ohlin Model in Theory and Practice," Princeton Studies in International Finance No. 77, 1995. On the web at http://www.princeton.edu/~ies/old_series-win.htm#p1990.

Wolfgang Stolper and Paul A. Samuelson, "Protection and Real Wages," *Review of Economic Studies*, November 1941.

Vousden, Appendix 1 and Chapter 1.

Wong, Chapters 1 and 2.

Woodland, Chapters 2-4, 7.

2. Comparative advantage and factor content of trade.

*Feenstra, Chapters 2-4.

*Wassily Leontief, "Domestic Production and Foreign Trade: The American Capital Position Reexamined," *Economia Internazionale*, February 1954. Also in Caves and Johnson.

*Jaroslav Vanek, "The Factor Proportions Theory: The N-Factor Case," *Kyklos*, 1968.

*Alan Deardorff, "Weak Links in the Chain of Comparative Advantage," *Journal of International Economics*, 1979. Also in Bhagwati (1987).

*Alan Deardorff, "The General Validity of the Law of Comparative Advantage," *Journal of Political Economy*, 1980.

Trent J. Bertrand, "An Extension of the N-Factor Case of the Factor Proportions Theory," *Kyklos*, 1972.

Helpman and Krugman (a), Chapters 1 and 2.

James R. Melvin, "Production and Trade with Two Factors and Three Goods," *American Economic Review*, 1972.

J. Peter Neary, "Short-Run Capital Specificity and the Pure Theory of International Trade," *Economic Journal*, September 1978. Also in Bhagwati (1987).

Vousden, Chapter 1.

Wong, Chapters 1-3

3. International trade and international capital mobility.

*Robert A. Mundell, "International Trade and Factor Mobility," *American Economic Review*, 1957. Also in Bhagwati.

Kar-yiu Wong, "Are International Trade and Factor Mobility Substitutes?" *Journal of International Economics*, 1986. Also in Bhagwati.

Wilfred Ethier and L.E.O. Svensson, "The Theorems of International Trade with Factor Mobility," *Journal of International Economics*, 1986.

Roy J. Ruffin, "International Factor Movements," in Handbook I.

Wong, Chapter 4.

4a. Empirical tests of the factor proportions theory.

Feenstra, Chapter 2.

*Edward E. Leamer, "The Leontief Paradox, Reconsidered," *Journal of Political Economy*, 1980. Also in Bhagwati.

*Richard A. Brecher and Ehsan U. Choudhri, "The Leontief Paradox, Continued," *Journal of Political Economy*, 1982.

*Harry Bowen, Edward Leamer, and Leo Sveikauskas, "Multicountry, Multifactor Tests of the Factor Abundance Theory," *American Economic Review*, December 1987.

*Daniel Trefler, "The Case of the Missing Trade and Other HOV Mysteries," *American Economic Review*, December 1995.

Harry Bowen and Leo Sveikauskas, "Judging Factor Abundance," *Quarterly Journal of Economics*, May 1992.

Richard A. Brecher and Ehsan U. Choudhri, "The Factor Content of Consumption in Canada and the United States" A Two-Country Test of the Heckscher-Ohlin-Vanek Model," in R. Feenstra, ed., *Empirical Methods for International Trade*, MIT Press, 1988.

Alan Deardorff, "Testing Trade Theories and Predicting Trade Flows," in Handbook I.

James Harrigan, "Technology, Factor Supplies and International Specialization: Testing the Neoclassical Model," *American Economic Review*, September 1997.

Elhanan Helpman, "The Structure of Foreign Trade," *Journal of Economics Perspectives*, Spring 1999.

Edward E. Leamer, "The Heckscher-Ohlin Model in Theory and Practice," *Princeton Studies in Int'l Finance*, No. 77, February 1995.

Edward E. Leamer and James Levinsohn, "International Trade Theory: The Evidence," in Handbook III.

Daniel Trefler, "International Factor Price Differences: Leontief Was Right!" *Journal of Political Economy*, 1993.

4b. International economic data.

Feenstra, Appendix A.

Peter Hooper and J. David Richardson, eds., *International Economic Transactions: Issues in Measurement and Empirical Research*, University of Chicago Press, 1991.

Robert E. Lipsey, "The Data Infrastructure for International Economic Research: A Selective Survey," National Bureau of Economic Research, 1993.

World Bank, *World Development Report 2005*, New York: Oxford University Press, 2005 (longer series on CD ROM version).

5. Increasing returns, monopolistic competition, and the gravity equation

*Feenstra, Chapter 5.

*James Anderson, "A Theoretical Foundation for the Gravity Equation," *American Economic Review*, March 1979.

*Jeffrey H. Bergstrand, "The Gravity Equation in International Trade: Some Microeconomic Foundations and Empirical Evidence," *Review of Economics and Statistics*, August 1985.

*David Hummels and James Levinsohn, "Monopolistic Competition and International Trade: Reconsidering the Evidence," *Quarterly Journal of Economics*, August 1995.

*Paul Krugman, "Increasing Returns, Monopolistic Competition, and International Trade," *Journal of International Economics*, November 1979. Also in Bhagwati.

Donald R. Davis, "Intra-industry Trade: A Heckscher-Ohlin-Ricardo Approach," *Journal of International Economics*, November 1995.

Donald R. Davis and David E. Weinstein, "An Account of Global Factor Trade," *American Economic Review*, December 2001.

Alan V. Deardorff, "Determinants of Bilateral Trade: Does Gravity Work in a Neoclassical World?" in Jeffrey A. Frankel, ed., *The Regionalization of the World Economy*, University of Chicago Press, 1998.

Avinash Dixit and Joseph Stiglitz, "Monopolistic Competition and Optimum Product Diversity," *American Economic Review*, June 1977.

Avinash Dixit and Victor Norman, "Product Differentiation and Intraindustry Trade," in Dixit and Norman. Also in Grossman.

Simon J. Evenett and Wolfgang Keller, "On Theories Explaining the Success of the Gravity Equation," *Journal of Political Economy*, April 2002.

Helpman and Krugman (a), Chapters 6-8.

Paul Krugman and Anthony J. Venables, "Globalization and the Inequality of Nations," *Quarterly Journal of Economics*, November 1995.

John McCallum, "National Borders Matter: Canada-U.S. Regional Trade Patterns," *American Economic Review*, June 1995.

Daniel Trefler and Susan Zhu, "'Beyond the Algebra of Explanation: HOV for the Technology Age,'" *American Economic Review*, May 2000.

Vousden, Chapter 7.

Wong, Chapter 6.

6. Preferential trading.

*Feenstra, Chapter 6.

*Murray Kemp and Henry Wan, Jr., "An Elementary Proposition Concerning the Formation of Customs Unions," *Journal of International Economics*, 1976. Also in Bhagwati.

*Anne Krueger, "Are Preferential Trading Arrangements Trade-Liberalizing or Protectionist?" *Journal of Economic Perspectives*, Fall 1999.

*Richard Lipsey, "The Theory of Customs Unions: A General Survey," *Economic Journal*, 1960. Also in Bhagwati.

Jon D. Haveman, "Some Welfare Effects of Sequential Customs Union Formation," *Canadian Journal of Economics*, November 1996.

Philip I. Levy, "A Political-Economic Analysis of Free-Trade Agreements," *American Economic Review*, September 1997.

Rachel McCulloch and Peter A. Petri, "Alternative Paths Toward Open Global Markets," in K. E. Maskus, P. M. Hooper, E. E. Leamer, and J. D. Richardson, eds., *Quiet Pioneering: Robert M. Stern and His International Economic Legacy*. University of Michigan Press, 1997.

Christopher Magee, "Endogenous Preferential Trade Agreements: An Empirical Analysis," *Contributions to Economic Analysis and Policy*, 2003 (www.bepress.com/bejeap/contributions/vol2/iss1/art15).

Vousden, Chapter 10, especially pp. 234-246.

7. Tariffs and dumping

*Feenstra, Chapter 6.

*Robert E. Baldwin, "Are Economists' Traditional Trade Policy Views Still Valid?" *Journal of Economic Literature*, 1992.

*Jagdish N. Bhagwati, "The Generalized Theory of Distortions and Welfare," in J.N. Bhagwati, R.W. Jones, R.A. Mundell, and J. Vanek, eds, *Trade, Balance of Payments, and Growth: Papers in International Economics in Honor of Charles P. Kindleberger*. North-Holland, 1971. Also in Bhagwati.

*James A. Brander, "Intraindustry Trade in Identical Commodities," *Journal of International Economics*, 1981.

*James A. Brander and Barbara J. Spencer, "Tariff Protection and Imperfect Competition," in H. Kierzkowski, ed., *Monopolistic Competition and International Trade*. Oxford University Press, 1984. Also in Grossman.

*Harry G. Johnson, "Optimal Trade Intervention in the Presence of Domestic Distortions," In R.E. Caves, H.G. Johnson, and P.B. Kenen, eds., *Trade, Growth and the Balance of Payments*, Rand-McNally, 1965. Also in Bhagwati.

Kyle Bagwell and Robert W. Staiger, "An Economic Theory of the GATT," *American Economic Review*, March 1999.

James A. Brander and Paul R. Krugman, "A 'Reciprocal Dumping' Model of International Trade," *Journal of International Economics*, 1983. Also in Grossman.

Corden, Chapters 2-3, 7.

Gene M. Grossman and J. David Richardson, "Strategic Trade Policy: A Survey of Issues and Early Analysis," *Princeton Special Papers in International Economics* No. 15, April 1985.

Helpman and Krugman (a), Chapters 3-5.

Helpman and Krugman (b), Chapters 5-6.

Meade, especially Chapters 7-11.

Richard Pomfret, "The New Trade Theories, Rent-Snatching, and Jet Aircraft," *The World Economy*, September 1991.

Dani Rodrik, "Getting Interventions Right: How South Korea and Taiwan Grew Rich," *Economic Policy*, April 1995.

Vousden, Chapter 6.

Wong, Chapters 6-7 and 10-12.

8. Import quotas and export subsidies

*Feenstra, Chapter 7.

*Jagdish Bhagwati, "On the Equivalence of Tariffs and Quotas," in Robert E. Baldwin, ed., *Trade Growth and the Balance of Payments*, Cambridge University Press, 1965.

*James A. Brander and Barbara J. Spencer, "Export Subsidies and International Market Share Rivalry," *Journal of International Economics*, February 1985.

*Jonathan Eaton and Gene M. Grossman, "Optimal Trade and Industrial Policy under Oligopoly," *Quarterly Journal of Economics*, May 1986. Also in Grossman.

9. Political economy of trade policy and endogenous protection.

*Feenstra, Chapter 9.

*Robert E. Baldwin, "The Political Economy of Trade Policy," *Journal of Economic Perspectives*, Fall 1989.

*Jagdish N. Bhagwati, Richard A. Brecher, and T.N. Srinivasan, "DUP Activities and Economic Theory," *European Economic Review*, 1984. Also in Bhagwati.

*Anne O. Krueger, "The Political Economy of the Rent-Seeking Society," *American Economic Review*, June 1974. Also in Bhagwati.

*Pinelopi Goldberg and Giovanni Maggi, "Protection for Sale: An Empirical Investigation," *American Economic Review*, December 1999.

*Gene M. Grossman and Elhanan Helpman, "Protection for Sale," *American Economic Review*, September 1994.

Pravin Krishna, "Regionalism and Multilateralism: A Political Economy Approach," *Quarterly Journal of Economics*, February 1998.

Arvind Panagariya, "Cost of Protection: Where Do We Stand?" *American Economic Review*, May 2002.

Rupa Duttagupta and Arvind Panagariya, "Politics of Free Trade Area: Tariffs versus Quotas," *Journal of International Economics*, 413-427, December 2002.

Gorden Tullock, "The Welfare Costs of Tariffs, Monopolies, and Theft," *Western Economic Journal*, June 1967.

Vousden, Chapter 8.

10. Trade policies with internationally mobile factors.

*Richard A. Brecher and Carlos F. Diaz-Alejandro, "Tariffs, Foreign Capital and Immiserizing Growth," *Journal of International Economics*, 1977. Also in Bhagwati.

*Robert A. Mundell, "International Trade and Factor Mobility," *American Economic Review*, June 1957.

Richard A. Brecher and Ronald Findlay, "Tariffs, Foreign Capital and National Welfare with Sector-Specific Factors," *Journal of International Economics*, 1983.

Wong, Chapter 11.

11. Innovation, technology transfer, and growth.

*Feenstra, Chapter 10.

*Grossman and Helpman, especially chapters 3, 4, 6, 7.

*Paul M. Romer, "Endogenous Technical Change," *Journal of Political Economy*, October 1990.

Jagdish Bhagwati, Arvind Panagariya, and T.N. Srinivasan, "The Muddles Over Outsourcing," *Journal of Economic Perspectives*, Fall 2004.

Robert E. Lucas, "On the Mechanics of Economic Development," *Journal of Monetary Economics*, 1988.

Paul Krugman, "A Model of Innovation, Technology Transfer, and the World Distribution of Income," *Journal of Political Economy*, 1979.

Paul M. Romer, "Increasing Returns and Long-Run Growth," *Journal of Political Economy*, October 1986.

Paul Samuelson, "Where Ricardo and Mill Rebut and Confirm Arguments of Mainstream Economists Supporting Globalization," *Journal of Economic Perspectives*, Summer 2004.

Alwyn Young, "The Tyranny of Number: Confronting the Statistical Realities of the East Asian Growth Experience," *Quarterly Journal of Economics*, August 1995.

12. Multinational corporations.

*Feenstra, Chapter 11.

*James R. Markusen, "Multinationals, Multi-Plant Economies, and the Gains from Trade," *Journal of International Economics*, May 1984. Also in Bhagwati.

James R. Markusen and Anthony J. Venables, "Multinational Firms and the New Trade Theory," *Journal of International Economics*, December 1998.

Wilfred Ethier and James R. Markusen, "Multinational Firms, Technology Diffusion and Trade," *Journal of International Economics*, August 1996.

Caves, especially Chapters 2 and 3.

Wilfred Ethier, "The Multinational Firm," *Quarterly Journal of Economics*, November 1986. Also in Grossman.

Elhanan Helpman, "A Simple Theory of International Trade with Multinational Corporations," *Journal of Political Economy*, 1984. Also in Bhagwati.

Elhanan Helpman, "Multinational Corporations and Trade Structure," *Review of Economic Studies*, July 1985. Also in Grossman.

Wong, Chapter 13.

Note: Although the list already far exceeds what is feasible to cover in a one-semester course, a number of important topics do not appear on this outline. These topics include firm-level analysis of trade, trade and income distribution, intra-industry trade, trade under uncertainty, trade and natural resources, and trade and the environment. Please see me for help in identifying appropriate literature on topics not included or additional material on topics listed.