

International Trade
Syllabus
FALL 2007

Date: September 7, 2007

Instructor: Jonathan Eaton

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Time and location: Monday 1-4PM Room 802

Office hours: Wednesday 2-4 PM

or by appointment

Description: This course covers international trade at the Ph.D. level. There is an emphasis on data, measurement, and quantitative analysis.

Revisions: There will be revisions to the syllabus during the course. Make sure that you have the most recent version.

Webpage: Course materials, including the most recent version of the syllabus, will be available at the course website linked from <http://www.econ.nyu.edu/user/eatonj/>.

Requirements and Grading: There will ongoing problem sets on which you may work in groups. Problems are posted on the course webpage. You are not required to hand in answers but you will be asked to present answers in class. There will be a take-home examination which you must answer independently handed out the week of October 15 and due October 22. You will also be asked to make classroom presentations. There will be an in-class final exam.

Prerequisites: The course will assume a knowledge of microeconomics and macroeconomics at the Ph.D. level.

Readings: Lecture notes will occasionally be posted on the course webpage after the relevant lecture. Chapters are assigned from

Eaton, Jonathan and Samuel Kortum, *Technology in the Global Economy: A Framework for Quantitative Analysis* (unpublished, to be made available) (henceforth EK).

Feenstra, Robert C. *Advanced International Economics: Theory and Evidence* (Princeton University Press: 2003) (Henceforth Feenstra).

Students might also find the books listed below useful. Most are available in paperback.

Dixit, Avinash and Victor D. Norman, *The Theory of International Trade: A Dual, General Equilibrium Approach* (Cambridge University Press: 1980) (Henceforth DN).

Gene M. Grossman, *Imperfect Competition and International Trade* (MIT, 1992) (Henceforth G).

Paul R. Krugman and Elhanan Helpman, *Market Structure and Foreign Trade* (MIT, 1986) (Henceforth HK1).

Paul R. Krugman and Elhanan Helpman, *Trade Policy and Market Structure* (MIT, 1989) (Henceforth HK2).

J.N. Bhagwati, *International Trade: Selected Readings, Second Edition* (MIT, 1987) (Henceforth B).

Gene M. Grossman and Kenneth Rogoff, *Handbook of International Economics, Volume 3* (North-Holland, 1995) (Henceforth Handbook 3).

Gene M. Grossman and Elhanan Helpman, *Innovation and Growth in the Global Economy* (MIT, 1991).

Gene M. Grossman and Elhanan Helpman, *Interest Groups and Trade Policy* (Princeton, 2002).

Masahisa Fujita, Paul R. Krugman, and Anthony J. Venables, *The Spatial Economy: Cities, Regions, and International Trade* (MIT Press, 1999).

Masahisa Fujita and Jacques-Francois Thisse, *Economics of Agglomeration* (Cambridge, 2002).

Harrigan, James and Kwan Choi, *Handbook of International Trade* (Basil Blackwell) (Henceforth HC)

Data on Trade

The NBER trade data at:

<http://www.nber.org/data/>

Rob Feenstra's data at:

<http://www.internationaldata.org/>

and links therefrom.

Chad Jones' data at

<http://emlab.berkeley.edu/users/chad/datasets.html>.

Raymond Robertson's data which include Jon Havemen's international trade data at:

<http://www.macalester.edu/~robertson/>

The World Bank's World Development Indicators:

<http://devdata.worldbank.org/dataonline/>

The Penn World Tables:

<http://pwt.econ.upenn.edu/>

The Groningen Productivity data:

<http://www.ggdc.net/>

OECD, *STAN Database*.

Penn World Tables 6.1 at:

<http://datacentre.chass.utoronto.ca/pwt/>

CEPII data at:

<http://www.cepii.fr/anglaisgraph/news/accueilengl.htm#>

Course Outline

1 Observations on Trade, Innovation, and Growth in the Global Economy

*EK, Chapter 2

2 Technology-Based Specialization

Overview: EK, Chapter 3

2.1 Gravity and Armington

Anderson, James E. (1979) "A Theoretical Foundation for the Gravity Equation." *American Economic Review*, 69: 106-116.

*Anderson, James E. and Eric van Wincoop (2003) "Gravity with Gravitas: A Solution to the Border Puzzle," *American Economic Review*, 93: 170-192.

Anderson, James E. and Eric van Wincoop (2004) "Trade Costs" *Journal of Economic Literature*, 42: 691-751.

Hummels, David and Alexandre Skiba (2004) "Shipping the Good Apples Out? An Empirical Confirmation of the Alchian-Allen Conjecture," *Journal of Political Economy*, 112: 1384-1402.

2.2 Technological Heterogeneity and Market Structure

EK, Chapters 4 and 5

2.3 Comparative Advantage

*Chipman, John S. (1965) "A Survey of the Theory of International Trade: Part 1, The Classical Theory," *Econometrica*, 33: 477-519.

Jones, Ronald W. (1961) "Comparative Advantage and the Theory of Tariffs: A Multi-Country, Multi-Commodity Model" *Review of Economic Studies*, 28: 161-175.

*Dornbusch, Rudiger, Stanley Fischer, and Paul A. Samuelson (1977) "Comparative Advantage, Trade, and Payments with a Continuum of Goods," *American Economic Review*, 67: 823-839.

Wilson, Charles A. (1980) "On the General Structure of Ricardian Models with a Continuum of Goods: Applications to Growth, Tariff Theory, and Technical Change," *Econometrica*, 48: 1675-1702.

Handbook 3, Grossman and Helpman.

EK, Chapter 6.

*Eaton Jonathan and Samuel Kortum (2002) "Technology, Geography, and Trade." *Econometrica*, 70: 1741-1779 (EK, Chapter 8).

*Alvarez, Fernando and Robert E. Lucas (2007) "General Equilibrium Analysis of the Eaton-Kortum Model of International Trade," *Journal of Monetary Economics*, 54: 1726-1768.

Dekle, Robert, Jonathan Eaton and Samuel Kortum (2007) "Global Rebalancing with Gravity: How Big is the Burden of

Adjustment?" manuscript.

2.4 Monopolistic Competition and Increasing Returns

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

Feenstra, Chapter 5.

Feenstra, Robert E. (1994) "New Product Varieties and the Measurement of International Prices." *American Economic Review*, 84: pp. 157-77.

*Broda, Christian and David Weinstein (2006) "Globalization and the Gains from Variety," *Quarterly Journal of Economics*, 121: 541-585.

*Krugman, Paul R. (1980) "Scale Economies, Product Differentiation, and the Pattern of Trade," *American Economic Review*, 70: 950-959.

*Ethier, Wilfred J. (1982) "National and International Returns to Scale in the Modern Theory of International Trade," *American Economic Review*, 72: 950-959 (G, Reading 14).

2.5 Product Quality

*Hummels, David and Peter J. Klenow (2005) "The Variety and Quality of a Nations Exports," *American Economic Review*, 95: 704-723.

*Flam, Harry and Elhanan Helpman (1987) "Vertical Product Differentiation and North-South Trade," *American Economic Review*, 77: 810-22.

Khandelwal, Amit (2005) "Product Quality and Competition in International Trade," at:

<http://pantheon.yale.edu/~ak389/research.html>

2.6 Economic Geography and Agglomeration

Fujita, Masahisa, Paul R. Krugman and Anthony J. Venables, (1999) *The Spatial Economy: Cities, Regions, and International Trade* (MIT Press).

Fujita, Masahisa and Jacques-Francois Thisse (2002) *Economics of Agglomeration* (Cambridge).

HC, Overman, Redding, and Venables.

*Redding, Stephen and Anthony J. Venables (2004) "Economic Geography and International Inequality," *Journal of International Economics*, 62: 53-82.

Yi, Kei-Mu (2003) "Can Vertical Specialization Explain the Growth of World Trade?" *Journal of Political Economy*, 111: 52-102.

Rossi-Hansberg, Esteban (2005) "A Spatial Theory of Trade," *American Economic Review*, 95: 1464-1491.

3 Technology and Growth

Overview: EK Chapter 7.

3.1 Growth in a Multicountry World

*Krugman, Paul R. (1979) "A Model of Innovation, Technology Transfer, and the World Distribution of Income," *Journal of Political Economy*, 87: 253-266.

Grossman, Gene M. and Elhanan Helpman (1991) *Innovation and Growth in the Global Economy* (MIT Press).

Acemoglu, Daron and Jaume Ventura (2002) "The World Income Distribution," *Quarterly Journal of Economics*, 117: 659-694.

Feenstra, Chapter 10.

3.2 Innovation and Technology Diffusion

*Benhabib, Jess and Marc Spiegel (2002) “Human Capital and Technology Diffusion,” New York University.

<http://www.econ.nyu.edu/user/benhabib/growthhandbook10.pdf>

Eaton, Jonathan and Samuel Kortum (1996) “International Technology Diffusion: Theory and Measurement,” *International Economic Review*, 40: 537-570 (EK Chapter 11).

*Eaton, Jonathan and Samuel Kortum (2001) “Trade in Capital Goods,” *European Economic Review*, 45: 1195-1235 (EK Chapter 10).

Rodriguez-Clare, Andrés, “Trade, Diffusion, and the Gains from Openness,” at

<http://www.econ.psu.edu/~aur10/research.htm>

4 Producer-Level Analysis

Producer Level Trade

*Melitz, Marc (2003) “The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity,” *Econometrica*, 71: 1695-1726.

*Yeaple, Stephen Ross (2002) “A Simple Model of Firm Heterogeneity, International Trade, and Wages,” *Journal of International Economics*, 65: 1-20.

*Roberts, Mark J. and James R. Tybout (1997) “The Decision to Export in Columbia: An Empirical Model of Entry with Sunk Costs,” *American Economic Review*, 87: 545-564.

*Bernard, Andrew B., Jonathan Eaton, J. Bradford Jensen, and Samuel Kortum (2003) “Plants and Productivity in International Trade,” *American Economic Review*, 93: 1268-1290 (EK Chapter 9).

Eaton, Jonathan, Samuel Kortum, and Francis Kramarz (2003) “An Anatomy of International Trade: Evidence from French Firms,” New York University.

HC, Tybout.

4.1 Multinational Corporations and Outsourcing

Feenstra, Chapter 11.

*Yeaple, Stephen Ross (2005) “Firm Heterogeneity and the Structure of U.S. Multinational Enterprise: An Empirical Analysis” at:

<http://www.ssc.upenn.edu/~snyeapl2/papers/composition.pdf>

Antràs, Pol (2002) “Firms, Contracts, and Trade Structure,” *Quarterly Journal of Economics*, 118: 1375-1418.

Antràs, Pol (2002) “Incomplete Contracts and the Product Cycle,” *NBER Working Paper No. 9945*.

HC, Lipsey, Maskus and Markusen.

*Helpman, E., M.J. Melitz, and S.R. Yeaple (2003) “Exports vs. FDI with Heterogeneous Firms,” *American Economic Review*.

*Ramondo, Natalia (2006) “Size, Geography, and Multinational Production” University of Texas, at:

http://www.eco.utexas.edu/~nr3353/paper_shell.pdf

Head, Keith and John Ries (2007) “FDI as an Outcome of the Market for Corporate Control: Theory and Evidence,” *Journal of International Economics*, in press.

Antràs, Pol and Elhanan Helpman (2004) “Global Sourcing,” *Journal of Political Economy*, 112: 552-580.

4.2 Oligopoly

*Brander, James A. and Paul R. Krugman (1982) “A ‘Reciprocal Dumping’ Model of International Trade,” *Journal of International Economics*, 15: 313-323 (G, Reading 1).

Goldberg, Penelopi K. (1995) “Product Differentiation and Oligopoly in International Markets: The Case of the U.S. Automobile Industry,” *Econometrica*, 63: 891-951.

Friberg, Rikard and Matthias Ganslandt (2006) “An Empirical Assessment of the Welfare Effects of Reciprocal Dumping,” *Journal of International Economics*, 70: 1-24.

5 Immigration

Ottaviano, Gianmarco and Giovanni Peri (2006) “Rethinking the Effect of Immigration on Wages.” at:

<http://www.econ.ucdavis.edu/faculty/gperi/working.htm>

6 The Gains from Trade

*Chipman, John S. (1965) “A Survey of the Theory of International Trade: Part 2, The Neoclassical Theory,” *Econometrica*, 33: 18-76.

DN.

7 Factor-Endowments

*Chipman, John S. (1966) “A Survey of the Theory of International Trade: Part 3, The Modern Theory,” *Econometrica*, 34: 685-690.

DN

7.1 Heckscher-Ohlin Theorems

*Feenstra, Chapters 1 and 2.

Samuelson, Paul A. (1949) “International Factor Price Equalization Once Again,” (B, Reading 1; CJ, Reading 3).

Findlay, Ronald, and Herbert Grubel (1959) “Factor Intensities, Technological Progress, and the Terms of Trade,” *Oxford Economic Papers*, 111-121.

Rybczynski, Tadeusz M. (1955) “Factor Endowments and Relative Commodity Prices,” (CJ, Reading 4).

HC, Harrigan.

Grossman, Gene and Esteban Rossi-Hansberg (2006) “Trading Tasks: A Simple Theory of Offshoring,” at

<http://www.princeton.edu/~erossi/papersall.html>

7.2 The Wage Disparity Controversy

Feenstra, Chapter 4.

*Acemoglu, Daron (2003) “Patterns of Skill Premia,” *Review of Economic Studies*, 70: 199-230.

HC, Feenstra and Hanson.

7.3 Higher Dimensions

Feenstra, Chapter 3.

7.4 Quantitative Analysis

Handbook 3, Leamer and Levinsohn.

*Trefler, Daniel (1993) "International Factor Price Differences: Leontief was Right!" *Journal of Political Economy*, 101: 961-987.

Harrigan, James (1997) "Technology, Factor Supplies, and International Specialization," *American Economic Review*, 87: 475-494.

Davis, Donald R. and David E. Weinstein (1998) "An Account of Global Factor Trade," *American Economic Review*, 91: 1423-1453.

HC, Davis and Weinstein.

Shikher, Serge (2005) "Accounting for International Trade," Boston University.

8 Trade Policy

8.1 The Effects of Trade Intervention

*Lerner Abba P. (1936) "The Symmetry Between Import and Export Taxes" (CJ, Reading 11).

*Feenstra, Chapter 7.

*HK2, Chapters 3-4, 7.

*Krishna, Kala (1989) "Trade Restrictions as Facilitating Practices," *Journal of International Economics*, 26: 251-270 (G, Reading 5).

Brander, James A. and Barbara J. Spencer (1981) "Tariffs and the Extraction of Monopoly Rents under Potential Entry," *Canadian Journal of Economics*, 14: 371-389 (B, Reading 10).

8.2 Regional Integration

Handbook 3, Baldwin and Venables.

*Feenstra, Chapter 6.

8.3 Strategic Trade Policy

Handbook 3, Brander.

*Feenstra, Chapter 8.

Eaton, Jonathan and Gene M. Grossman (1986) "Optimal Trade and Industrial Policy under Oligopoly," *Quarterly Journal of Economics*, 101 383-406 (B, Reading 11; G, Reading 7).

*Maggi, Giovanni (1995) "Strategic Trade Policies with Endogenous Mode of Competition," *American Economic Review*, 86: 237-258.

8.4 Rent-Seeking, Reform, and Politics

Handbook 3, Rodrik.

Feenstra, Chapter 9.

Krueger, Anne O. (1974) "The Political Economy of the Rent-Seeking Society," *American Economic Review*, 64: 291-303 (B, Reading 17).

*Fernandez, Raquel and Dani Rodrik (1991) "Resistance to Reform: Status Quo Bias in the Presence of Individual-Specific Uncertainty," *American Economic Review*, 81: 1146-1155.

*Grossman, Gene M. and Elhanan Helpman (1994) "Protection for Sale," *American Economic Review*, 84: 833-850.

Goldberg, Penelopi K. and Giovanni Maggi (1999) "Protection for Sale: An Empirical Investigation," *American Economic Review*, 89: 35-55.

HC, Gawande and Krishna.

8.5 Quantitative Analysis of Trade Policy

*Handbook 3, Feenstra.

Berry, Stephen, James Levinsohn, and Ariel Pakes (1999) "Voluntary Export Restraints on Automobiles: Evaluating a Trade Policy," *American Economic Review*, 89: 400-430.

HC, Blonigen and Prusa.

Approximate Schedule

week	topic
September 10	observations
September 17	gravity and technological heterogeneity
September 24	comparative advantage
October 1	monopolistic competition and increasing returns
October 8	economic geography and agglomeration
October 15	producer level trade
October 22	multinationals and oligopoly
October 29	growth in a multicountry world
November 5	innovation and diffusion
November 12	the gains from trade
November 19	factor endowments I
November 26	factor endowments II
December 3	trade policy I
December 10	trade policy II