

(Updated: 4/1/2008)

ECON 35800: Quantitative Analysis in International Trade

University of Chicago, Spring Quarter, 2008

Monday, Weds., and Fri. 10:30-11:50, Rosenwald 329

Instructor: Samuel Kortum
Phone: (773) 702-8251
TA: Dan Lu

Office: 318j Rosenwald
Office Hours: Tue. 2:00-3:30
danlu@uchicago.edu

Description This course is the last in the 3-course sequence on International Trade and Growth. It covers recent quantitative work in international trade, broadly defined. During the quarter we explore the behavior of individual producers in international markets, trade flows between nations, technology diffusion and aggregate growth. We develop theoretical models, evaluate their ability to capture key stylized facts, show how to estimate their parameters, and demonstrate their use in performing policy experiments. The course involves a mix of theory, data, econometrics, and computation.

Warning The syllabus will likely be updated during the semester.

Assignments There will be a number of problem sets and other assignments during the quarter.

Grading Your course grade will be based on the assignments (50%) and a take-home final (50%).

Readings Most of the readings are journal articles and working papers. I will also use major sections from a book I am writing with Jonathan Eaton: *Technology in the Global Economy: A Framework for Quantitative Analysis* (henceforth EK).

Topics The following list summarizes the topics and readings by week. I may deviate from this schedule if more time is required for a certain topic. The starred (*) readings will be the focus of the lecture.

1. **(3/31, 4/2, 4/4) Introduction: Applying the DFS Model.**

- *Dornbusch, Fisher, and Samuelson, “Comparative Advantage, Trade, and Payments in a Ricardian Model with a Continuum of Goods,” *American Economic Review*, 1977: 823-839.
 - Matsuyama, “Ricardian Trade Theory,” forthcoming in the *New Palgrave*.
 - *Obstfeld and Rogoff, “Global Current Account Imbalances and Exchange Rate Adjustments,” *Brookings Papers* 1:2005.
 - *Dekle, Eaton, and Kortum, “Unbalanced Trade,” *American Economic Review, Papers and Proceedings*, 2007 (see appendix to *NBER Working Paper #13035*).
2. **(4/7, 4/11: out of town on 4/9) A Framework for Quantitative Analysis.**
- *EK, Chapter 4-6.
 - Grossman and Helpman, “Quality Ladders in the Theory of Growth,” *Review of Economic Studies*, 1991.
 - Eaton and Kortum, “Technology, Geography, and Trade,” *Econometrica*, 2002: 1741-1780.
 - Alvarez and Lucas, “General Equilibrium Analysis of the Eaton-Kortum Model of International Trade,” forthcoming *Journal of Monetary Economics*.
 - Kortum, “Research, Patenting, and Technological Change,” *Econometrica*, 1997: 1389-1419.
3. **(4/14, 4/16, 4/18) Macroeconomic Application: Trade Imbalances.**
- *Dekle, Eaton, and Kortum, “Global Rebalancing with Gravity: Measuring the Burden of Adjustment,” *NBER Working Paper #13846*, 2008.
 - EK, Chapters 2-3.
 - *Obstfeld and Rogoff, “The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?” *NBER Macroeconomics Annual*, 2000.
 - Fitzgerald, Doireann, “Trade Costs, Asset Market Frictions, and Risk Sharing: A Joint Test,” mimeo, Stanford University, 2007.
4. **(out of town all week)**

5. **(4/30, 5/2: out of town 4/28) Microeconomic Application: Export Behavior of French Firms.**
 - Bernard and Jensen, “Exporters, Jobs, and Wages in US Manufacturing, 1976-1987,” *Brookings Papers, Microeconomics*, 1995.
 - *Bernard, Eaton, Jensen, and Kortum, “Plants and Productivity in International Trade,” *American Economic Review*, 2003.
 - Melitz, “The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity,” *Econometrica*, 2003: 1659-1726.
 - Chaney, “Distorted Gravity: Heterogeneous Firms, Market Structure, and the Geography of International Trade,” 2007.
 - Arokolakis, “Market Access Costs and the New Consumers Margin in International Trade,” 2008.
 - *Eaton, Kortum, and Kramarz, “An Anatomy of International Trade: Evidence from French Firms,” 2008.
6. **(5/5, 5/7, 5/9) International Prices.**
 - Crucini, Telmer, and Zachariadis, “Understanding European Real Exchange Rates,” *American Economic Review*, 2005: 724-738.
 - Broda and Weinstein, “Understanding International Price Differences Using Barcode Data,” mimeo, University of Chicago, 2007.
7. **(5/12, 5/14, 5/16) Trade Elasticities.**
 - Ruhl, “The International Elasticity Puzzle,” mimeo, University of Texas at Austin, 2008.
 - Broda and Weinstein, “Globalization and the Gains from Variety,” *Quarterly Journal of Economics*, 2006: 541-585.
 - Romalis, “NAFTA’s and CUSFTA’s Impact on International Trade,” *Review of Economics and Statistics*, 2007: 416-435.
 - Bishop, “Substitution Elasticities and the Cost of Protection: Evidence from the 2002 US Steel Tariffs.”
8. **(5/19, 5/21: out of town 5/23) HOV Models:**
 - Dixit and Norman, *Theory of International Trade*, chapter 4, 1980.

- Ariel Reshev.
 - Treffer.
9. **(5/28, 5/30: Memorial Day 5/26) CGE Models:**
- Shoven and Whalley, “Applied General-Equilibrium Models of Taxation and International Trade: An Introduction and Survey,” *Journal of Economic Literature*, 1984: 1007-1051.
 - Kehoe and Kehoe, “Capturing NAFTA’s Impact with Applied General Equilibrium Models,” *Federal Reserve Bank of Minneapolis Quarterly Review*, Spring 1994.
 - Kehoe and Kehoe, “A Primer on Static Applied General Equilibrium Models,” *Federal Reserve Bank of Minneapolis Quarterly Review*, Spring 1994.
10. **(6/2, 6/4: reading period begins 6/5) Global Warming.**
11. **Take Home Final Exam:**
12. **Topics I’d Like to Cover:**
- (a) **Trade and International Technology Diffusion.**
- *Krugman, “A Model of Technology Transfer and the World Distribution of Income,” *Journal of Political Economy*, 1979: 253-266.
 - *Romer, “Endogenous Technical Change,” *Journal of Political Economy*, 1990: S71-S102.
 - Eaton and Kortum, “International Technology Diffusion: Theory and Measurement,” *International Economic Review*, 1999: 537-570.
 - *Eaton and Kortum, “Innovation, Diffusion, and Trade,” *NBER Working Paper #12385*, 2006.
 - *Rodriguez-Clare, “Trade, Diffusion, and the Gains from Openness,” mimeo, Pennsylvania State University, 2007.
- (b) **FDI and Foreign Outsourcing.**
- – *Keith Head and John Ries, “FDI as an Outcome of the Market for Corporate Control: Theory and Evidence,” mimeo University of British Columbia, forthcoming *Journal of International Economics*.
 - Keith Head, Thierry Mayer, and John Ries, “How Remote is the Offshoring Threat?” mimeo University of British Columbia, 2007.

- Corrado, Hulten, and Sichel, “Intangible Capital and Economic Growth,” *NBER Working Paper #11948*, 2006..
- *McGrattan and Prescott, “Technology Capital and the US Current Account,” *Minneapolis Fed Working Paper # 646*, 2006.
- *McGrattan and Prescott, “Openness, Technology Capital, and Development,” *Minneapolis Fed Working Paper # 651*, 2007.