

Graduate International Trade Course

ECON 8413 - Fall 2021

University of Colorado, Boulder

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Office Hours: Wednesday 9:00am-10:30am, Econ 214

Syllabus

This course takes a theoretical and empirical approach to the study of international trade. The class is structured around research papers, primarily recent contributions to the frontier of international trade research. We will first discuss core trade theories and empirical applications based on these theories. Next, we will turn to more recent theories that focus on the firm's decision to export, investigating the role of heterogeneity in firm productivity on patterns of trade. This will be followed by an exploration of multinational activity, including different types of foreign direct investment and different intersections between trade and other fields.

This course is targeted at second-year (and higher) Ph.D. students in economics. Students are expected to have completed first-year micro and macro theory courses. ‘

Topics

1. Comparative Advantage, Gains from Trade, International Equilibrium
2. Ricardian Models
3. New Trade Theory

4. Firm-level Trade
5. Gravity Models
6. Multinationals
7. Demand Patterns and Trade
8. Trade and Labor
9. Trade policy

Grading

Your final grade will be determined according to the following percentages

- Problem Sets/Reading checks 40%
- In class participation 10%
- Referee Report 15%
- Research Proposal 35%

Reading checks are going to due almost weekly. These checks should detail: 1) a brief summary using your own words, 2) the most important contribution(s) of the paper, 3) its main limitations (if you find one, 4) and your questions (if any). The comments should be precise and clear, this is the most important part of the grade on these comments. Do not copy parts of the abstract or conclusion, but find your own way to write them. If you feel that you have not understood an important point of the paper, please say it in the comments. That way, I can put an emphasis on those points during the lectures (your questions will remain confidential).

Referee report should be on one of the following paper.

- Allen, Treb. "Information Frictions in Trade."
- Faber, Benjamin. "Trade Integration, Market Size, and Industrialization: Evidence from China's National Trunk Highway System." .

- Fort, Teresa. “Technology and Production Fragmentation: Domestic versus Foreign Sourcing”.
- Tiltelnot, Felix. “Global Production with Export Platforms”

These are recent and successful job market papers on in international trade. Your report should be around 5 pages long and include:

- a summary of the main features of the paper (one paragraph);
- a description of its contribution to the literature (one paragraph);
- its main strengths and weaknesses; your recommendations to improve it (2-3 pages).

The research proposal should be 15-20 pages long (double-spaced) and describe:

- the question you want to address;
- why you think it is important;
- why you think the answer of the previous literature is unsatisfactory;
- how you plan to improve it.

Your grade will reflect both the precision with which you answer these questions (in particular, the concreteness of your proposed improvement, i.e. how far you have thought it through and progressed to date) and the quality of the proposed improvement (i.e. how good an idea for a paper it seems).

Reading List

There are no required texts for the course. However, the following books are very useful sources for particular issues in trade theory:

R. Feenstra, Advanced International Trade, Princeton U Press, 2004 (F).

J. Markusen and K Maskus, International Trade: Theory and Evidence, manuscript 2014 (MM); I will email this text to you.

A. Dixit and V. Norman, Theory of International Trade, Cambridge U. Press. 1992 (DN).

Helpman and P. Krugman, Market Structure and Foreign Trade, MIT Press, 1986 (HK).

K. Bagwell and R.W. Staiger The Economics of the World Trading System, MIT Press, 2003 (BS).

P. Combes, T. Mayer, and J-F Thisse, Economic Geography, Princeton U Press, 2008 (CMT).

1. Gains from Trade and Comparative Advantage

- *Dixit, Avinash and Victor Norman, Ch. 1, p., Ch. 2 p. 31-36, Ch. 2 p. 59-64, Ch. 3, p. 95-80.
- Feenstra, Robert, Ch. 1, p. 1-4.
- Deardorff, Alan (1980). "The General Validity of the Law of Comparative Advantage," Journal of Political Economy
- Dixit, Avinash and Victor Norman (1986). "Gains from Trade without Lump-Sum Compensation," Journal of International Economics
- Samuelson, P. "The Gains from International Trade." Cambridge Journal of Economics (1939): 195–205.
- *Bernhofen, and Brown. "A Direct Test of the Theory of Comparative Advantage: The Case of Japan." Journal of Political Economy 112, no. 1 (2004): 48–67.
- *Bernhofen, and Brown. "An Empirical Assessment of the Comparative Advantage Gains from Trade: Evidence from Japan." American Economic Review 95, no. 1 (2005): 208–25.
- *Frankel, J., and D. Romer. "Does Trade Cause Growth?" American Economic Review 89, no. 3 (1999): 379–99.
- *Feyrer, James. 2019. "Trade and Income - Exploiting Time Series in Geography." American Economic Journal: Applied Economics, 11(4): 1-35.
- Feyrer, J. "Distance, Trade and Income – The 1967 to 1975 Closing of the Suez Canal as a Natural Experiment." NBER Working Paper no. 15557, 2009.
- *Etkes, Haggay and Assaf Zimring. 2015 "When Trade Stops: Lessons from the 2007- 2010 Gaza Blockade" Journal of International Economics, 95:1.

2. Ricardian Setting

- *Dornbusch, Rudiger, Stanley Fischer, and Paul Samuelson (1977). "Comparative Advantage, Trade, and Payments in a Ricardian Model with a Continuum of Goods," American Economic Review
- *Eaton, Jonathan and Samuel Kortum, "Technology, Geography, and Trade," Econometrica (Sept. 2002)
- *Costinot, Arnaud, Dave Donaldson and and Ivana Komunjer. "What Goods Do Countries Trade? A Quantitative Exploration of Ricardo's Ideas." Review of Economic Studies 79, no. 2 (2012): 581-608.
- *Nunn, Nathan. "Relationship-Specificity, Incomplete Contracts, and the Pattern of Trade." The Quarterly Journal of Economics 122, no. 2 (2007): 569–600.
- Donaldson, Dave (2010). "Railroads of the Raj: Estimating the Impact of Transportation Infrastructure." American Economic Review.
- Mac Dougall, G. "British and American Exports: A Study Suggested by the Theory of Comparative Costs. Part I." The Economic Journal 61, no. 244 (1951): 697–724.
- Stern, R. "British and American Productivity and Comparative Costs in International Trade." Oxford Economic Papers New Series 14, no. 3 (1962): 275–96.
- Balassa, B. "An Empirical Demonstration of Classical Comparative Cost Theory." Review of Economics and Statistics 45, no. 3 (1963): 231–8.
- Golub, and Hsieh. "Classical Ricardian Theory of Comparative Advantage Revisited." Review of International Economics 8, no. 2 (2000): 221–34.

3. Factor Endowment Models

A. Heckscher-Ohlin

- Dixit, Avinash and Victor Norman, Ch. 1, p. 8-19, Ch. 2, Ch. 4 p. 96-102, 106-122
- * Feenstra, Robert, Ch. 1-4

- * Trefler, Daniel (1995). “The Case of the Missing Trade and other Mysteries,” American Economic Review
- Jones, Ronald (1965). “The Structure of Simple General Equilibrium Models,” Journal of Political Economy
- Deardorff, Alan and Robert Staiger (1988). “An Interpretation of the Factor Content of Trade,” Journal of International Economics
- Davis, Donald and David Weinstein (2001). “An Account of Global Factor Trade,” American Economic Review
- Zhu, Susan and Daniel Trefler (2005). “Trade and Inequality in Developing Countries: A General Equilibrium Analysis,” Journal of International Economics

3. Monopolistic Competition and Trade

- Helpman, Elhanan and Paul Krugman, Ch. 6-11
- * Krugman, Paul, (1980). “Scale Economies, Product Differentiation, and the Pattern of Trade,” American Economic Review, p. 950-959
- Helpman, Elhanan, (1981). “International Trade in the Presence of Product Differentiation, Economies of Scale, and Imperfect Competition: A Chamberlin-Heckscher-Ohlin Approach,” Journal of International Economics.
- Krugman, Paul, (1979). “Increasing Returns, Monopolistic Competition, and International Trade,” Journal of International Economics.

4. Gravity Models, Geography and Trade Costs:

- * Anderson and van Wincoop, “Gravity with Gravitas: A Solution to the Border Puzzle,” AER 2003, 170-92
- * Head and Mayer, “Gravity Equations: Workhorse, Toolkit, and Cookbook,”

- * Redding and Sturm, "The Costs of Remoteness: Evidence from German Division and Reunification," AER 2008, 1766-97
- Anderson and van Wincoop, "Trade Costs," Journal of Economic Literature 2004, 691-751
- Hummels, "Transportation Costs and International Trade in the Second Era of Globalization," Journal of Economic Perspectives 2007, 131-54
- Baier and Bergstrand, "Bonus Vetus OLS: A Simple Method for Estimating International Trade Cost Effects Using the Gravity Equation," JIE 2009, 77-85.

5. Firms and the Decision to Export: Theoretical Models with Firm Heterogeneity

- * Melitz, Marc (2003). "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity," Econometrica, 71(6), p. 1695-1725
- * Bernard, Andrew, Stephen Redding and Peter Schott (2007). "Comparative Advantage and Heterogeneous Firms," Review of Economic Studies 74
- * Chaney, Thomas (2008). "Distorted Gravity: The Intensive and Extensive Margins of International Trade," American Economic Review, 98(4)
- Melitz, Marc and Gianmarco Ottaviano (2008). "Market Size, Trade and Productivity," Review of Economic Studies, 75, p. 295-316
- Bernard, Andrew, Jonathan Eaton, Bradford Jensen and Samuel Kortum (2003). "Plants and Productivity in International Trade," American Economic Review, 93(4), p. 1268-1290
- Arkolakis, Costas, Arnaud Costinot, and Andres Rodriguez-Clare (2010). "New Trade Mode Same Old Gains?" American Economic Review 102(1).

6. Empirical Evidence on Firm Heterogeneity

- * Eaton, Jonathan, Samuel Kortum and Francis Kramarz (2011). "An Anatomy of International Trade: Evidence from French Firms," *Econometrica*, 79(5).
- * Eaton, Jonathan, Samuel Kortum and Francis Kramarz (2004). "Dissecting Trade: Firms, Industries, and Export Destinations," *American Economic Review P&P*, 94, p. 150-154
- * Arkolakis, Costas (2010). "Market Access Costs and the New Consumers Margin in International Trade," *Journal of Political Economy*, 118(6), p. 1151-1199
- Bernard, Andrew, Bradford Jensen and Peter Schott (2007). "Importers, Exporters, and Multinationals: A Portrait of Firms in the U.S. that Trade Goods," Dartmouth Tuck mimeo
- Bernard and Jensen (1995). "Exporters, Jobs and Wages in U.S. Manufacturing, 1976-1987," *Brookings Papers on Economic Activity: Microeconomics*
- * Helpman, Elhanan, Marc Melitz and Yona Rubinstein (2008). "Estimating Trade Flows: Trading Partners and Trading Volumes," *Quarterly Journal of Economics*, 123(2), p. 441-487
- * Broda, Christian and David Weinstein (2006). "Globalization and the Gains from Variety," *Quarterly Journal of Economics* 121(2)
- * Morales, Eduardo, Gloria Sheu, Andres Zahler (2010). "Gravity and Extended Gravity: A Structural Model of Export Entry," Columbia University mimeo
- Hummels, David and Peter Klenow (2005). "The Variety and Quality of a Nation's Exports," *American Economic Review* 95, p. 704-723
- Baldwin, Richard and James Harrigan (2011). "Zeros, Quality and Space: Trade Theory and Trade Evidence," *American Economic Journal: Microeconomics*, 3, p. 60-88
- Eaton, Jonathan, Marcela Eslava, Maurice Kugler and James Tybout (2008). "The Margins of Entry into Exports Markets: Evidence from Columbia," in E. Helpman, D. Marin and T. Verdier, eds., *The Organization of Firms in a Global Economy*, forthcoming, Harvard University Press.

- Tybout, James (2001). "Plant- and Firm-level Evidence on the New Trade Theories," in E. Kwan Choi and James Harrigan, ed., *Handbook of International Trade*, Oxford: Basil-Blackwell, 2003, and NBER Working Paper No. 8418
- Costinot, Arnaud, Dave Donaldson, and Ivana Komunjer (2012). "What Goods Do Countries Trade? New Ricardian Predictions," *Review of Economic Studies*, 79(2).

7. Demand Patterns and Trade:

- * Markusen, "Putting Per-Capita Income Back into Trade Theory," *JIE* 2013, 255- 65
- * Caron, Fally and Markusen, "International Trade Puzzles: A Solution Linking Production and Preferences," working paper 2013, *QJE* 2014
- Markusen, "Explaining the Volume of Trade: an Eclectic Approach," *AER* 1986, 1002-1011
- MM, Ch. 14 Hunter, "The Contribution of Nonhomothetic Preferences to Trade," *JIE* 1991
- Bergstrand, "The Heckscher-Ohlin Theorem, the Linder Hypothesis, and the Volume and Pattern of International Trade," *EJ* 1990

8. Horizontal FDI and the Proximity-Concentration Hypothesis

- * Helpman, Elhanan and Paul Krugman, Ch. 12-14
- * Brainard, Lael (1997). "An Empirical Assessment of the Proximity-Concentration Trade-off Between Multinational Sales and Trade," *American Economic Review*, 87(4), p. 520-544
- Markusen, James and Anthony Venables (2000). "The Theory of Endowment, Intra-industry and Multi-national Trade," *Journal of International Economics*, 52, p. 209-234
- * Helpman, Elhanan, Marc Melitz, and Stephen Yeaple (2004). "Exports versus FDI with Heterogeneous Firms," *American Economic Review*, 94(1), p. 300-316
- Markusen, James (1984). "Multinationals, Multi-Plant Economies, and the Gains from Trade," *Journal of International Economics*, 16, p. 205-226

- Markusen, James (1995). "The Boundaries of Multinational Enterprises and the Theory of International Trade," *Journal of Economic Perspectives*, 9(2), p. 169-189
- Markusen, James and Anthony Venables (1998). "Multinational Firms and the New Trade Theory," *Journal of International Economics*, 46(2), p. 183-203
- Markusen, James (2002). "Multinational Firms and the Theory of International Trade, Cambridge, MA, MIT Press

9. Vertical FDI

- * Helpman, Elhanan (1984). "A Simple Theory of International Trade with Multinational Corporations," *Journal of Political Economy*, 92(3), p. 451-471
- * Yeaple, Stephen (2003a). "The Role of Skill Endowments in the Structure of U.S. Outward FDI," *Review of Economics and Statistics*, August, 85(3), p. 726-734
- * Yeaple, Stephen (2003b). "The Complex Integration Strategies of Multinationals and Cross Country Dependencies in the Structure of FDI," *Journal of International Economics*, 60, p. 293-314
- * Ramondo, Natalia and Andres Rodriguez-Clare (2010). "Trade, Multinational Production, and the Gains from Openness," mimeo
- * Arkolakis, Costas, Natalia Ramondo, Andres Rodriguez-Clare, Stephen Yeaple (2012). "Innovation and Production in the Global Economy," mimeo
- * Hanson, Gordon, Raymond Mataloni and Matthew Slaughter (2005). "Vertical Production Networks in Multinational Firms," *Review of Economics and Statistics*, 87(4), p. 664-678.
- Helpman, Elhanan and Paul Krugman (1985). *Market Structure and Foreign Trade*, Cambridge, MA: MIT Press. Chapter 12
- Carr, David, James Markusen and Keith Maskus (2001). "Estimating the Knowledge-Capital Model of the Multinational Enterprise," *American Economic Review*, 91(3), p. 693-708

- Yi, Kei-Mu (2003). "Can Vertical Specialization Explain the Growth of World Trade?" *Journal of Political Economy*, 111(1), p. 52-102 13.

10. The Boundaries of the Multinational Firm

- Antras, Pol (2003). "Firms, Contracts, and Trade Structure," *Quarterly Journal of Economics*, 118(4), p. 1375-1418
- * Antras, Pol (2005). "Incomplete Contracts and the Product Cycle," *American Economic Review*, 95(4), p. 1054-1073
- * Antras, Pol and Elhanan Helpman (2004). "Global Sourcing," *Journal of Political Economy*, 112, p. 552-580
- Antras, Pol and Elhanan Helpman (2008). "Contractual Frictions and Global Sourcing," forthcoming in E. Helpman, D. Marin, and T. Verdier (eds.), *The Organization of Firms in a Global Economy*, Harvard University Press
- Yeaple, Stephen (2006). "Offshoring, Foreign Direct Investment, and the Structure of U.S. Trade," *Journal of the European Economic Association*, 4, p. 602-611
- * Nunn, Nathan and Daniel Trefler (2008). "The Boundaries of the Multinational Firm: An Empirical Analysis," forthcoming in E. Helpman, D. Marin, and T. Verdier (eds.), *The Organization of Firms in a Global Economy*, Harvard University Press
- Feenstra, Robert C. and Gordon H. Hanson (2005). "Ownership and Control in Outsourcing to China: Estimating the Property-Rights Theory of the Firm," *Quarterly Journal of Economics*, 120(2), p. 729-761
- Bernard, Andrew, Jensen, Bradford, Redding, Stephen, and Peter Schott (2010). "Intra-firm Trade and Product Contractibility." *American Economic Review P&P*, 100(2), p. 444-448.
- Helpman, Elhanan (2006). "Trade, FDI and the Organization of Firms," *Journal of Economic Literature*, 44, p. 589-630

- McLaren, John (2000). "Globalization and Vertical Structure," American Economic Review 90(5), p. 1239-1254
- Grossman, Gene and Elhanan Helpman (2002). "Integration vs. Outsourcing in Industry Equilibrium," Quarterly Journal of Economics, 117(1), p. 85-120
- Desai, Mihir, Fritz Foley and James Hines (2004). "Foreign Direct Investment in a World of Multiple Taxes," Journal of Public Economics, 88(12), p. 2727-2744

11. Organization of Production Within Firms

- Antras, Pol and Estaban Rossi-Hansberg, (2009). "Organizations and Trade," Annual Review
- Antras, Pol, Luis Garicano and Esteban Rossi-Hansberg (2006). "Offshoring in a Knowledge Economy," Quarterly Journal of Economics, 121(1), p. 31-77
- Garicano, Luis and Esteban Rossi-Hansberg (2004). "Inequality and the Organization of Knowledge," American Economic Review P&P, 94(2), p. 197-202
- Garicano, Luis and Esteban Rossi-Hansberg (2006). "Organization and Inequality in a Knowledge Economy," Quarterly Journal of Economics, 121(4), p. 1383-1435
- Grossman, Gene and Esteban Rossi-Hansberg (2008). "Trading Tasks: A Simple Theory of Offshoring," American Economic Review, 98(5), p. 1978-1997
- Costinot, Arnaud (2009). "On the Origins of Comparative Advantage," Journal of International Economics, 77, p. 255-264
- Costinot, Arnaud, Jonathan Vogel, and Su Wang (2011). "An Elementary Theory of Global Supply Chains," MIT mimeo

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- * Feenstra, 2003, chapters 7 and 9

- * Bagwell, Kyle, and Robert W. Staiger. 1999. "An Economic Theory of GATT." *American Economic Review*, 89(1): 215–48.
- * Broda, C, N Limao and D. Weinstein, "Optimal Tariffs and Market Power: The Evidence" *American Economic Review*, 2008
- Koujianou Goldberg, P. and G. Maggi, "Protection for Sale: An Empirical Investigation," *American Economic Review* 89(5): 1135-55, December 1999.
- * Grossman, G.M. and E. Helpman, "Protection for Sale," *American Economic Review*, September 1994, 84(4), 833-50.
- Bagwell, Kyle, and Robert W. Staiger. 2006. "What Do Trade Negotiators Negotiate About?" Empirical Evidence from the World Trade Organization. National Bureau of Economic Research Working Paper 12727.
- Grossman, G.M. and E. Helpman, "The Politics of Free Trade Agreements," *American Economic Review*, September 1995, 84(4), 667-90.

Classroom Behavior

Both students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote or online. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. For more information, see the policies on classroom behavior and the Student Conduct & Conflict Resolution policies.

Requirements for COVID-19

As a matter of public health and safety due to the pandemic, all members of the CU Boulder community and all visitors to campus must follow university, department and building requirements and all public health orders in place to reduce the risk of spreading infectious disease. Students who fail to adhere to these requirements will be asked to leave class, and students who do not leave class when asked or who refuse to comply with these requirements will be referred to Student Conduct and Conflict Resolution. For more information, see the policy on classroom behavior and the Student Code of Conduct. If you require accommodation because a disability prevents you from fulfilling these safety measures, please follow the steps in the “Accommodation for Disabilities” statement on this syllabus.

As of Aug. 13, 2021, CU Boulder has returned to requiring masks in classrooms and laboratories regardless of vaccination status. This requirement is a temporary precaution during the delta surge to supplement CU Boulder’s COVID-19 vaccine requirement. Exemptions include individuals who cannot medically tolerate a face covering, as well as those who are hearing-impaired or otherwise disabled or who are communicating with someone who is hearing-impaired or otherwise disabled and where the ability to see the mouth is essential to communication. If you qualify for a mask-related accommodation, please follow the steps in the “Accommodation for Disabilities” statement on this syllabus. In addition, vaccinated instructional faculty who are engaged in an indoor instructional activity and are separated by at least 6 feet from the nearest person are exempt from wearing masks if they so choose.

Students who have tested positive for COVID-19, have symptoms of COVID-19, or have had close contact with someone who has tested positive for or had symptoms of COVID-19 must stay home.

Accommodation for Disabilities

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the Disability Services website. Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical

condition, see Temporary Medical Conditions on the Disability Services website.

Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code academic integrity policy. Violations of the Honor Code may include, but are not limited to: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code (honor@colorado.edu); 303-492-5550). Students found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found on the Honor Code website.

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

The University of Colorado Boulder (CU Boulder) is committed to fostering an inclusive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, or protected-class discrimination or harassment by or against members of our community. Individuals who

believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or email cureport@colorado.edu. Information about OIEC, university policies, reporting options, and the campus resources can be found on the OIEC website.

Please know that faculty and graduate instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, dating and domestic violence, stalking, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about their rights, support resources, and reporting options.

Religious Holidays

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance.

See the campus policy regarding religious observances for full details.