

Graduate International Trade Course – 8413  
Thibault Fally, University of Colorado-Boulder  
Fall 2012

## Course outline

Economics 8413 is a course on International Trade designed for Ph.D. students in the Economics Department. It will cover theoretical as well as empirical issues, with an emphasis on core models (part one) and firms (part two). The prerequisites are first-year graduate courses in microeconomics, macroeconomics and econometrics. Students from other departments are welcome subject to instructor's approval. You will find below a tentative schedule (note: 1 lecture = 1h15). This schedule remains flexible depending on the speed of advancement and students' interests:

### First part: General theories (about 10 lectures)

- 1 lecture: introduction, motivation, data availability
- 3 lectures on Heckscher Ohlin (review, empirical tests)
- 3 lectures on recent Ricardian models (Eaton Kortum 2002 and related developments)
- 3 lectures on gravity equations, home market effect and gains from trade

### Second part: Firms in Trade (about 6 lectures)

- 3 lectures on firm heterogeneity and international trade (theory): preliminary evidence on firm heterogeneity (motivation), Melitz 2003 model, endogenous markup models.
- 3 lectures on the empirics of firm heterogeneity (firm-level evidence).
- Note: topics related to multinational firms will be covered in the Spring Trade course.

### Third part: Other topics

- 1 lecture on Trade in intermediate goods
- 1 lecture on quality, Linder hypothesis.
- 2 lectures on Trade and Institutions, Trade and financial constraints
- 2 lectures on Trade Policy (tariffs, FTA), political economy of trade policy

### Other topics could be discussed, time permitting:

Trade and growth, Technology transfers, Trade and wage inequalities, Networks, Trade and environmental issues, Culture and trade, Quality and product standards, Multi-product firms.

## Contact information

Email: [fally@colorado.edu](mailto:fally@colorado.edu)

Office: 11

Office hours: Monday and Wednesday, 2.00 – 3.00 pm and by appointment.

Please come to visit my office at least once before the midterm. I would like to hear your suggestions and check how you feel about the course. This is important for me and for you.

## Course requirements and grading

After each lecture, I will tell you which article(s) or book chapter(s) to read before the following lecture.

As part of the grade (20%), I will ask you to write comments almost every week on one article. There will be about a dozen comments due in total, and I will decide your grade based on your 10 best comments. These articles will be posted on the course website. I would like to receive these comments no later than Sunday by 4pm if the comment is due on Monday. Please include “8413” in the title of your email.

These comments should take about 15 lines, and should include: 1) a brief summary using your own words, 2) the most important contribution(s) of the paper, 3) its main limitations (if you see any), whether you are convinced by the results and whether you would have done things differently, 4) and your questions (if any). The comments should be precise and clear (clarity is an important part of the grade on these comments). Do not copy parts of the abstract or conclusion, but find your own way to write these comments. 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. I will try to answer your questions during the following lecture (keeping your questions anonymous).

I will also ask you to comment one article more in details (15% of the grade). These comments may take the form of a referee report (approx. 5 pages) or a class presentation.

Please choose an article (preferably an article that has not been covered in class in details) and send me an email with your preferences before I give my approval. I may ask you to choose another article. If you want to make a presentation instead of a referee report, you should ask me soon enough such that I can coordinate with the course content (e.g. before the midterm). Referee reports are due one week after Thanksgiving.

Class participation counts for another 20% of the grade. This includes the presentation of one paper (distinct from the one with the referee report) in class towards the end of the semester (35 min presentation). You will need to contact me for the choice of the paper to present in order to coordinate and cover distinct subjects. This part of the grade also refers to participation during regular lectures. Please be on time and feel free to ask questions during the course: I welcome comments and debates during the lectures. Also, attendance at the Department seminar is required when a trade paper is presented.

There will be two written exams: a midterm (15%) and a final (35%). The midterm will be on October 31<sup>st</sup> and the final will be on December 18<sup>th</sup> at 7.30pm (time imposed by the registrar's office). Please let me know as soon as possible if there is any incompatibility.

## Reading list

Double asterisks (\*\*) refer to key readings (mandatory). Asterisks (\*) signal strongly recommended readings. The reading list may be updated throughout the semester (and posted on the course website).

### **Main book:**

- Feenstra, R.C., *Advanced International Trade: Theory and Evidence* (Princeton, Princeton University Press), 2003.

### **Other recommended books:**

- Helpman, E. and P. Krugman, *Market Structure and Foreign Trade*, (Cambridge, MA, and London, The MIT Press), 1985.
- Grossman, G.M. and E. Helpman, *Innovation and Growth in the Global Economy*, (Cambridge, Ma, and London, The MIT Press), 1991.
- Markusen J.R., J.R. Melvin, W.H. Kaempfer, K.E.Maskus, "International Trade: Theory and Evidence", McGraw-Hill, 1995
- "The Great Trade Collapse: Causes, Consequences, and Prospects", ed. by R. Baldwin, VoxEU.org, 2009

## First part: General theories

### **Factor content of trade**

- \*\* Feenstra, 2003, chapter 2, 3 and 4
- \*\* Davis, D.R. and D.W. Weinstein, "An Account of Global Factor Trade," *American Economic Review*, December 2001, 91(5), 1423-53.
- \*\* Trefler, D., "The Case of the Missing Trade and Other Mysteries," *American Economic Review*, December 1995, 85(5), 1029-46.
- \* Helpman, E. "The Structure of Foreign Trade," *Journal of Economic Perspectives*, Spring 1999, 13(2), 121-44.
- \* Trefler, Daniel & Zhu, Susan Chun, 2010, "The structure of factor content predictions", *Journal of International Economics*, vol. 82(2), p 195-207.
- \* Romalis, J., "Factor Proportions and the Structure of Commodity Trade," *American Economic Review*, March 2004, 94(1), 67-97.
- Deardorff, A., "The General Validity of the Heckscher-Ohlin Theorem", *American Economic Review*, 72(4), September, 1982, 683-94.
- Dornbusch, R., S. Fischer and P.A. Samuelson, "Heckscher-Ohlin Theory with a Continuum of Goods", *Quarterly Journal of Economics Papers*, 1980.
- Schott, Peter K., "One Size Fits All? Heckscher-Ohlin Specialization in Global Production," *American Economic Review*, 2003, Vol. 93, 686-708.
- Trefler, D., "International Factor Price Differences: Leontief was Right!", *Journal of Political Economy*, December, 1993, 101(6), 961-87.

### **Ricardian theory and tests**

- \*\* Feenstra, 2003, chapter 1
- \*\* Eaton, J. and S. Kortum, 2002, "Technology, Geography, and Trade," *Econometrica*, 70 (5), 2002, 1741-1779.
- \* Costinot, Arnaud, Dave Donaldson and Ivana Komunjer, "What Goods Do Countries Trade: A Quantitative Exploration of Ricardo's Ideas", *Review of Economic Studies*, 2012, vol. 79, issue 2, pp. 581-608
- \* Donaldson, Dave, "Railroads of the Raj: Estimating the Economic Impact of Transportation Infrastructure", LSE mimeo
- Bernhofen, D.M. and J.C. Brown, "A Direct Test of the Theory of Comparative Advantage: The Case of Japan," *Journal of Political Economy* 112(1), 2004, 48-67.
- Dornbusch, R., S. Fischer and P.A. Samuelson, "Comparative Advantage, Trade and Payments in a Ricardian Model with a Continuum of Goods," *American Economic Review*, 1977, 823-39.
- Eaton, Jonathan and Samuel Kortum, "Putting Ricardo to Work", forthcoming, *Journal of Economic Perspectives*.
- Eaton, Jonathan, Samuel Kortum and Sebastian Sotelo, "International Trade: Linking Micro and Macro", NBER Working Paper #17864, 2012.
- Hanson, G. 2012. *The Rise of Middle Kingdoms: Emerging Economies in Global Trade*. *Journal of Economic Perspectives*, forthcoming.

### **Product varieties, gravity equation, gains from trade**

- \*\* Feenstra, 2003, chapter 5
- \*\* Arkolakis, C., A. Costinot and A. Rodriguez-Clare, "New Trade Models, Same Old Gains?" *American Economic Review*, 2012, 102(1), 94-130.
- \* Anderson, J. and van Wincoop, E. (2004) "Trade Costs", *Journal of Economic Literature*, 42, 691-751.
- \* Anderson, J. and E. van Wincoop, "Gravity with Gravitas: A Solution to the Border Puzzle," *American Economic Review*, 2003, 170-192.
- \* Broda, Christian and David Weinstein (2006). "Globalization and the Gains from Variety," *Quarterly Journal of Economics* 121(2).
- \* Krugman, P., "Increasing Returns, Monopolistic Competition, and International Trade", *Journal of International Economics* 1979.
- \* Santos Silva, J. and Tenreyro, S. "The Log of Gravity", *Review of Economics and Statistics*, Vol. 88, No. 4, Pages 641-658.
- Antweiler, W. and D. Trefler, "Increasing Returns and All That: A View from Trade," *American Economic Review*, March 2002, 92(1), 93-119.
- Fally, T. "Structural Gravity and Fixed Effects", mimeo Colorado
- Head, K. and T.Mayer (2004). "The Empirics of Agglomeration and Trade". In V.Henderson and J.F.Thisse (Eds.), *Handbook of Regional and Urban Economics*, Vol 4: 2609-2669. North Holland.
- Helpman, E. and P. Krugman, *Market Structure and Foreign Trade*, (Cambridge, MA, and London, The MIT Press), 1985. Monopolistic competition: chapters 6 to 11.
- Hummels, David and Peter Klenow (2005). "The Variety and Quality of a Nation's Exports," *American Economic Review* 95, p.704-723.
- Krugman, P.R., "Scale Economies, Product Differentiation and the Pattern of Trade", *American Economic Review*, 1980.
- Krugman, P., "Increasing Returns and Economic Geography", *Journal of Political Economy* 1991.

## Second part: Firms in trade

### **Firm heterogeneity: theory**

- \*\* Melitz, Marc (2003). "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity," *Econometrica*, 71(6), p.1695-1725.
- \*\* Melitz, Marc and Gianmarco Ottaviano (2008). "Market Size, Trade and Productivity," *Review of Economic Studies*, vol. 75(1), pages 295-316, 01.
- \* Arkolakis, C., A. Costinot, D. Donaldson and A. Rodriguez-Clare, "The elusive pro-competitive effects of trade", mimeo, check for updates of the paper.
- \* Chaney, Thomas (2008). "Distorted Gravity: The Intensive and Extensive Margins of International Trade," *American Economic Review*, September 2008, Vol. 98, No. 4.
- \* Helpman, E., "Trade, FDI, and the Organization of Firms," *Journal of Economic Literature*, XLIV, 2006, 589-630
- Yeaple, S., "A Simple Model of Firm Heterogeneity, International Trade, and Wages", *Journal of International Economics* 2005.
- Arkolakis, Costas, "Market Access Costs and the New Consumers Margin in International Trade," *Journal of Political Economy*, 2010, 118 (6), 1151-1199.
- Bernard, Andrew, Jonathan Eaton, Bradford Jensen and Samuel Kortum (2003), "Plants and Productivity in International Trade," *American Economic Review*, 93(4), p.1268-1290.

### **Empirics on firm heterogeneity**

- \*\* Eaton, Jonathan, Samuel Kortum and Francis Kramarz (2004b). "Dissecting Trade: Firms, Industries, and Export Destinations," *American Economic Review P&P*, 94, p.150-154.
- \*\* Helpman, Elhanan, Marc Melitz and Yona Rubinstein (2008). "Estimating Trade Flows: Trading Partners and Trading Volumes," *Quarterly Journal of Economics*, forthcoming.
- \*\* Pavcnik, N. (2002), "Trade Liberalization, Exit, and Productivity Improvements: Evidence from Chilean Plants", *Review of Economic Studies* 69, January, pp. 245-76.
- \* 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, Andrew B., J. Bradford Jensen, Stephen J. Redding and Peter K. Schott, "Firms in International Trade," *Journal of Economic Perspectives*, 2007, 21(3), 105-130.
- \* Roberts, Mark and James Tybout (1997). "The Decision to Export in Colombia: An Empirical Model of Entry with Sunk Costs," *American Economic Review*, 87(4), p.545-564.
- Bernard A. and J. B. Jensen (2004). "Why Some Firms Export," *The Review of Economics and Statistics*, 86(2).
- Bernard, Andrew and Bradford Jensen (1999). "Exceptional Exporter Performance: Cause, Effect, or Both?" *Journal of International Economics*, 47(1), p.1-25.
- Baldwin, Richard and James Harrigan (2007). "Zeros, Quality and Space: Trade Theory and Trade Evidence," NBER Working Paper No. 13214.
- Bernard and Jensen (1995). "Exporters, Jobs and Wages in U.S. Manufacturing, 1976-1987," *Brookings Papers on Economic Activity: Microeconomics*.
- 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.
- Eaton, Jonathan, Samuel Kortum and Francis Kramarz (2004a). "An Anatomy of International Trade: Evidence from French Firms," New York University mimeo.
- 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.

### **Multi-product firms:**

- Arkolakis, Costas and Marc Muendler (2007). "The Extensive Margin of Exporting Goods: A Firm-Level Analysis," UCSD mimeo.
- Bernard, Andrew, Stephen Redding and Peter Schott (2006a). "Multi-Product Firms and Product Switching," Dartmouth Tuck mimeo.
- Bernard, Andrew, Stephen Redding and Peter Schott (2006b). "Multi-Product Firms and Trade Liberalization," Dartmouth Tuck mimeo.
- Bernard, Andrew, Stephen Redding and Peter Schott (2006c). "Products and Productivity," Dartmouth Tuck mimeo.
- Eckel, C. and P. Neary, "Multi-Product Firms and Flexible Manufacturing in the Global Economy," Review of Economic Studies, forthcoming.

### **Third part: Other topics potentially covered**

#### **Offshoring, intermediate goods trade**

- \* Grossman, G., and E. Rossi-Hansberg, "Trading Tasks: A Simple Theory of Offshoring", American Economic Review, vol. 98(5), pages 1978-97, December.
- Antràs, Pol, Luis Garicano and Esteban Rossi-Hansberg (2006). "Offshoring in a Knowledge Economy," Quarterly Journal of Economics, 121(1), p.31-77.
- Yeaple, S.R., "Offshoring, Foreign Direct Investment, and the Structure of U.S. Trade," Journal of the European Economic Association, 2006, 4(2-3), 602-611.
- Yi, Kei-Mu (2003). "Can Vertical Specialization Explain the Growth of World Trade?" Journal of Political Economy, 111(1), p.52-102.
- Johnson, R. and G. Noguera, "Fragmentation and Trade in Value Added Over Four Decades", mimeo
- Fally, T. "Production Staging: Measurement and Evidence", mimeo
- Costinot, A., J. Vogel and S. Wang "An Elementary Theory of Global Supply Chains", Review of Economic Studies, forthcoming

#### **Trade, demand-side and quality**

- Caron J., T. Fally and J. Markusen, "Skill premium and trade puzzles: a solution linking production and preferences".
- Juan Carlos Hallak, 2010, "A Product-Quality View of the Linder Hypothesis," The Review of Economics and Statistics, vol. 92(3), pages 453-466, August.
- Fajgelbaum P., G. M. Grossman and E. Helpman, 2011 "Income Distribution, Product Quality, and International Trade," Journal of Political Economy, v. 119(4), p721- 765.
- Hummels D., P. J. Klenow, 2005, "The Variety and Quality of a Nation's Exports," American Economic Review, vol. 95(3), pages 704-723.

#### **Trade and wage inequalities**

- \* Feenstra, R. and Hanson, G. (1996) "Globalization, Outsourcing, and Wage Inequality", American Economic Review Papers and Proceedings, vol. 96 no 2, pp. 240-45.
- Bustos, Paula (2006). "Rising Wage Inequality in the Argentinean Manufacturing Sector: The Impact of Trade and Foreign Investment on Technology and Skill Upgrading," CREI mimeo.

- Helpman, Elhanan, Oleg Itskhoki and Stephen Redding, "Inequality and Unemployment in a Global Economy," mimeo, 2008.
- Verhoogen, Eric (2004). "Trade, Quality Upgrading and Wage Inequality in the Mexican Manufacturing Sector: Theory and Evidence from an Exchange-Rate Shock," Columbia University mimeo.
- Yeaple, Stephen (2005). "A Simple Model of Firm Heterogeneity, International Trade, and Wages," *Journal of International Economics*, 65(1), p.1-20.

### **Institutions and trade**

- \*\* Nunn, Nathan (2007). "Relationship-Specificity, Incomplete Contracts, and the Pattern of Trade," *Quarterly Journal of Economics*, 122(2), p.569-600.
- Acemoglu, Daron, Pol Antràs and Elhanan Helpman (2005). "Contracts and Technology Adoption," *American Economic Review* 97(3), p.916-943.
- Levchenko, Andrei (2007). "Institutional Quality and International Trade," *Review of Economic Studies*, 74(3), p.791-819.
- Costinot, Arnaud (2008). "On the Origins of Comparative Advantage," *Journal of International Economics*.
- Levchenko, Andrei, "International Trade and Institutional Change", NBER Working Paper No. 17675.

### **Financial constraints and trade**

- \* Antràs, Pol, Mihir Desai, and Fritz Foley (2007). "Multinational Firms, FDI Flows and Imperfect Capital Markets," Harvard University mimeo.
- \* Carluccio J. and T. Fally (2008) "Global Sourcing under Imperfect Capital Markets"
- \* Manova, Kalina (2008). "Credit Constraints, Equity Market Liberalizations and International Trade," *Journal of International Economics*, forthcoming.
- Antràs, Pol and Ricardo Caballero (2007). "Trade and Capital Flows: A Financial Frictions Perspective," Harvard University mimeo.
- Desai, Mihir, Fritz Foley and Kristin Forbes (2006). "Financial Constraints and Growth: Multinational and Local; Firm Responses to Currency Depreciations," *Review of Financial Studies*, forthcoming.
- Do, Quy-Toan and Andrei Levchenko (2007). "Comparative Advantage, Demand for External Finance, and Financial Development," *Journal of Financial Economics*, 86(3), p.796-834.
- Manova, Kalina, "Credit Constraints, Heterogeneous Firms and International Trade," *Review of Economic Studies*, forthcoming.
- Paravisini D., V. Rappoport, P. Schnabl and D. Wolfenzon (2011), "Dissecting the Effect of Credit Supply on Trade: Evidence from Matched Credit-Export Data," NBER Working Papers 16975.

### **Trade and the 2008 global crisis**

- The Great Trade Collapse: Causes, Consequences, and Prospects", ed. by R. Baldwin,. VoxEU.org. In particular: chapters 8, 9, 11  
<http://www.voxeu.org/index.php?q=node/4297>
- Manova, K. and D. Chor, "Off the Cliff and Back: Credit Conditions and International Trade during the Global Financial Crisis", mimeo
- Eaton, J., S. Kortum, B. Neiman, and J. Romalis (2010): "Trade and the Great Recession", mimeo

### **Trade policy**

- \*\* 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.

### **Other topics (probably not covered):**

#### **Trade, Innovation and Growth:**

- Grossman, G.M. and E. Helpman, 1991
- Feenstra, 2003, Chapter 10.
- Baldwin, R and F. Robert-Nicoud "Trade and growth with heterogenous firms", *Journal of International Economics* 74(1), pp.21-34 (January 2008).
- Frankel, Jeffrey A. and Romer, David, "Does Trade Cause Growth?" *American Economic Review*, June 1999, 89(3), 379-399.
- Keller, W., "International Technology Diffusion", *Journal of Economic Literature* 2004.
- Rodriguez, Francisco and Rodrik, Dani, "Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence," *NBER Macroeconomics Annual*, Vol. 15, 2001.

#### **Labor markets and trade**

- \* Cuñat, Alejandro and Marc Melitz (2007). "Volatility, Labor Market Flexibility and Comparative Advantage," *NBER Working Paper* #13062.
- \* Helpman, Elhanan and Oleg Itskhoki (2007). "Labor Market Rigidities, Trade and Unemployment," *Harvard University mimeo*.
- Davidson, Carl, Lawrence Martin and Steven Matusz (1999). "Trade and Search Generated Unemployment," *Journal of International Economics* 48, p.271-299.
- Davis, Donald (1998). "Does European Unemployment Prop Up American Wages? *National Labor Markets and Global Trade*," *American Economic Review* 88, p.478-494.
- Davis, Donald and James Harrigan (2007). "Good Jobs, Bad Jobs, and Trade Liberalization," *Columbia University mimeo*.

#### **Trade and Networks:**

- \* Chaney, Thomas, "The Network Structure of International Trade".
- Rauch, J., and V. Trindade, "Information, Substitutability, and Globalization", *American Economic Review* 2003.
- Rauch, A. (1999) "Networks Versus Markets in International Trade" *Journal of International Economics* 48, 7-35.



## References on multinational firms (not to be covered in Fall)

### *Horizontal FDI*

- \*\* Helpman, Elhanan, Marc Melitz, and Stephen Yeaple (2004). "Exports versus FDI with Heterogeneous Firms," *American Economic Review*, 94(1), p.300-316.
- \* 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 (1984). "Multinationals, Multi-Plant Economies, and the Gains from Trade," *Journal of International Economics*, 16, p.205-226.
- \* Markusen, James and Anthony Venables (2000). "The Theory of Endowment, Intra-industry and Multi-national Trade," *Journal of International Economics*, 52, p.209-234.
- Ethier, J.W. and J.R. Markusen, "Multinational Firms, Technology Diffusion and Trade," *Journal of International Economics*, 1996.
- 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.
- Ramondo, Natalia (2007). "Size, Geography, and Multinational Production," University of Texas at Austin mimeo.

### *Offshoring, vertical FDI,*

- \* Grossman, G., and E. Rossi-Hansberg, "Trading Tasks: A Simple Theory of Offshoring", *AER*, forthcoming
- \* Antràs, Pol, Luis Garicano and Esteban Rossi-Hansberg (2006). "Offshoring in a Knowledge Economy," *Quarterly Journal of Economics*, 121(1), p.31-77.
- \* Hanson, Gordon, Raymond Mataloni and Matthew Slaughter (2001). "Expansion Strategies of U.S. Multinational Firms," in Dani Rodrik and Susan Collins, eds., *Brookings Trade Forum 2001*, pp. 245-282.
- \* Helpman, Elhanan (1984). "A Simple Theory of International Trade with Multinational Corporations," *Journal of Political Economy*, 92(3), p.451-471.
- \* 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.
- 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.
- Grossman, G. M. and E. Helpman (2003) "Outsourcing versus FDI in Industry Equilibrium", *Journal of the European Economic Association*, vol. 1, no.2.
- Helpman, Elhanan and Paul Krugman (1985). *Market Structure and Foreign Trade*, Cambridge, MA: MIT Press. Chapter 12.
- Nunn, Nathan and Daniel Trefler, "The Boundaries of the Multinational Firm: An Empirical Analysis," in E. Helpman, D. Marin, and T. Verdier (eds.), *The Organization of Firms in a Global Economy* (Cambridge, MA: Harvard University Press), 2008.
- Yeaple, S.R., "Offshoring, Foreign Direct Investment, and the Structure of U.S. Trade," *Journal of the European Economic Association*, April-May 2006, 4(2-3), 602-611.
- Yi, Kei-Mu (2003). "Can Vertical Specialization Explain the Growth of World Trade?" *Journal of Political Economy*, 111(1), p.52-102.

### ***Incomplete contracts and multinational production***

- \*\* Antràs, P., “Firms, Contracts, and Trade Structure,” Quarterly Journal of Economics, 2003, 1375-1418.
- \*\* Antràs, P. and E. Helpman, “Global Sourcing,” Journal of Political Economy 112(3), 2004, 552-580.
- \* Antràs, Pol and Esteban Rossi-Hansberg, "Organizations and Trade," 2008, forthcoming in Annual Review of Economics.
- Antras, P. (2005) “Incomplete Contracts and the Product Cycle," American Economic Review, Vol. 95, No. 4, September, pp. 1054-1073.
- Grossman, S. and Hart, O. (1986) “The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration”, Journal of Political Economy 94 (4).
- Hart, O. and Moore, J. (1990) “Property Rights and the Nature of Firms”, Journal of Political Economy 98.

### ***Host economy effect of FDI***

- Aitken, B. and Harrison, A. (1999), "Do Domestic Firms Benefit from Direct Foreign Investment? Evidence from Venezuela", American Economic Review, Vol. 89.
- Carluccio, J. and T. Fally (2012), “Foreign Entry and Spillovers with Technological Incompatibilities in the Supply Chain”, Journal of International Economics, forth.
- Kee, H. L. “Local Intermediate Inputs and the Shared Supplier Spillovers of Foreign Direct Investment”, mimeo, World Bank.
- Javorcik Smarzynska B (2004), "Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers through Backward Linkages", American Economic Review, Vol. 94.
- Markusen, J., and Venables, A.(1999), “Foreign direct investment as a catalyst for industrial development”, European Economic Review, Vol. 43.
- Rodriguez-Clare, A. (1996) "Multinationals, Linkages, and Economic Development", American Economic Review, Vol. 86.

### University policies

- All policies:  
<http://www.colorado.edu/policies/>
- Class behavior:  
<http://www.colorado.edu/policies/classbehavior.html>  
[http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student\\_code](http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code)
- Honor code:  
<http://www.colorado.edu/academics/honorcode/>  
<http://www.colorado.edu/policies/honor.html>
- Disabilities:  
<http://www.colorado.edu/disabilityservices/>
- Religious practices:  
[http://www.colorado.edu/policies/fac\\_relig.html](http://www.colorado.edu/policies/fac_relig.html)
- Sexual harassment:  
<http://www.colorado.edu/odh/>