

# Econ 357 (Fall 2010): Firms and International Trade Syllabus

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## Course outline

This course is an advanced course in International Trade. It is targeted at second year PhD students. It is part of a sequence in economic growth and international trade, and will be followed by Nancy Stokey's "Topics in Economic Growth" course, and Sam Kortum's "Quantitative Analysis in International Trade" course. The class will meet on Tuesdays and Thursdays from 10:30AM to 11:50AM in Rosenwald 329.

This course introduces students to the theories of international trade, with a special emphasis on the role of firms. After an introduction on key empirical regularities and traditional theories of international trade, we move on to study the most recent work in international trade: trade from the point of view of individual firms. First, we will try and understand the determinants of the decision of firms to export or not, which foreign market to enter, the role of heterogeneity between firms in shaping those decisions, and the aggregate behavior of an economy populated with such heterogeneous firms. Second, we will study the determinants of the size distribution of firms, as the heterogeneity in size is the key novel ingredient of modern models of firms and international trade. Third, we will study recent advances on the connection between international trade and wage inequality. Finally, we will study the

international organization of production, focusing on recent models of off-shoring, outsourcing and foreign direct investment.

## Grading

The grade will be based class participation, weekly reports, and an oral presentation.

**Weekly reports:** every week, for each new paper that we will cover at length in class, students should send me a brief comment by email on the evening before the class (include "ECON 357" in the title of the email). The comment should consist of a summary of the paper, 2 or 3 paragraphs at most. You should briefly describe the main idea/contribution of the paper. For theoretical papers, I expect a verbal sketch of the model, describing the steps in the reasoning, and the generality of the model. For empirical papers, you should describe the empirical procedure and the data used, and the robustness of the results. Finally, you should assess the importance of the paper in the literature, and describe how it relates to other papers we may have studied. The email should be concise. You can skip up to two papers in the quarter.

**Oral presentation:** the last two weeks of the class will be devoted to student presentations. Students grouped in pairs will present their choice from a set of papers that map the frontier of both this class, and research in international trade. The presentations will be 1h20 mins long. I expect the students to write slides down, as if they were presenting their own work. The goal is for the audience to gain a clear understanding of the paper presented.

Class participation will contribute to 20% of the grade, the weekly reports and the oral presentation 40% each.

# Reading list

Double starred papers (\*\*) are to be read prior to the beginning of the class, and the weekly reports will be based on those papers. Single starred (\*) papers should be read shortly after the class.

There are no assigned textbook for this class. However, I recommend the following,

- FEENSTRA, R. (2004), *Advanced International Trade. Theory and Evidence*, Princeton University Press.
- HELPMAN, H. and P. KRUGMAN (1985), *Market Structure and Foreign Trade*, Cambridge, MIT Press.

## 1 Introduction

Some stylized facts about international trade and investment.

### Some trends

- BALDWIN, Richard and Philippe MARTIN (1999), "Two Waves of Globalisation: Superficial Similarities, Fundamental Differences", *NBER working paper* 6904.

## 1.1 Gravity equations and trade barriers

### Gravity Equations

- FEENSTRA, R. (2004), *Advanced International Trade. Theory and Evidence*. Chapter 5
- (\*) ANDERSON, J. and E. VAN WINCOOP (2003), "Gravity with Gravitas: A Solution to the Border Puzzle," *AER*.
- (\*) MCCALLUM, J. (1995), "National Borders Matter: Canada-US Regional Trade Patterns," *AER*.
- (\*) DISDIER, Anne-Celia, and Keith HEAD (2008), "The Puzzling Persistence of the Distance Effect on Bilateral Trade", *Review of Economics and Statistics*.

- DEARDORFF, A. (1998), "Determinants of Bilateral Trade: Does Gravity Work in a Neoclassical World?," in J. Frankel ed., *The Regionalization of the World Economy*, University of Chicago for the NBER.
- COMBES, P-P., LAFOURCADE M. and T. MAYER (2005), "The Trade Creating Effects of Business and Social Networks: Evidence from France," *Journal of International Economics*, 66:1-29.
- RAMONDO, Natalia (2008), "Size, Geography, and Multinational Production", *mimeo* UT Austin.
- PORTES, Richard and Helene REY (2005), "The Determinants of Cross Border Equity Flows," *Journal of International Economics*, Volume 65, Issue 2, pp. 269-296, March 2005.
- AVIAT, Antonin and Nicolas COEURDACIER (2007), "The Geography of Trade in Goods and Asset Holdings," *Journal of International Economics*.
- HEAD, Keith and Thierry MAYER (2002), "Illusory Border Effects: Distance Mismeasurement Inflates Estimates of Home Bias in Trade," *CEPII Working Paper* 2002-01.

### Trade Barriers

- (\*) ANDERSON, James E. and Eric VAN WINCOOP (2004), "Trade Costs," *Journal of Economic Literature*, 42, 691-751.
- (\*) GROSSMAN, Gene: discussion of DEARDORFF, A. (1998), "Determinants of Bilateral Trade: Does Gravity Work in a Neoclassical World?," in J. Frankel ed., *The Regionalization of the World Economy*, University of Chicago for the NBER.
- JACKS, David, Chris MEISSNER, and Dennis NOVY (2008), "Trade Costs, 1870-2000" *American Economic Review Papers & Proceedings*, 98(2), May 2008, pp. 529-534
- ANDERSON, James E. (November, 2001), "Trade and Informal Institutions," Published in *Handbook of International Trade, Vol. 2*, James Hartigan and E. Kwan Choi, eds., Oxford: Blackwell Publishing, 2005, pp. 279-93.
- RAUCH, James (1999), "Networks versus Markets in International Trade," *Journal of International Economics*, 48, 7-35.

- RAUCH, James (2001), "Business and Social Networks in International Trade," *Journal of Economic Literature*, 39, December, pp. 1177-1203.
- RAUCH, James and Vitor TRINDADE (2002), "Ethnic Chinese Networks in International Trade", *Review of Economics and Statistics* 84 (February 2002): 116-130.
- BERNARD A. and J. B. JENSEN (2004), "Why Some Firms Export", *The Review of Economics and Statistics*, Vol. 86, No. 2.
- ROBERTS M. and J. TYBOUT (1997), "The Decision to Export in Colombia: An Empirical Model of Entry with Sunk Costs," *American Economic Review*, 87(4), 545-564.

## 1.2 Preliminary: Basic Models of International Trade

### Comparative Advantages

- (\*\*) DORNBUSCH, R., S. FISCHER and P. SAMUELSON (1977), "Comparative Advantage, Trade, and Payments in a Ricardian Model with a Continuum of Goods," *AER*.
- (\*) FEENSTRA, R. (2004), *Advanced International Trade. Theory and Evidence*. Chapter 1.
- COSTINOT, Arnaud and I. KOMUNJER (2008) "What Goods Do Countries Trade? A Structural Ricardian Model" *mimeo* MIT.

### Differences in Factor Endowments (Heckscher-Ohlin Model)

- (\*) FEENSTRA, R. (2004), *Advanced International Trade. Theory and Evidence*. Chapters 1, 2 and 3.
- JONES, R. (1965), "The Structure of Simple General Equilibrium Models," *JPE*.
- BHAGWATI, J. (1972), "The Heckscher-Ohlin Theorem in the Multicommodity Case," *JPE*.
- HELPMAN, E. (1984), "The Factor Content of Foreign Trade," *EJ*.
- ROMALIS, John (2004) "Factor Proportions and the Structure of Commodity Trade" , *American Economic Review*, Vol. 94(1), March 2004, pp.67-97.

## Monopolistic Competition and Increasing Returns

- (\*\*) KRUGMAN, P. (1980), “Scale Economies, Product Differentiation and the Pattern of Trade,” *AER*.
- DIXIT, Avinash and Joseph STIGLITZ (1977), “Monopolistic Competition and Optimum Product Diversity.” *American Economic Review* 67:297—308.
- KRUGMAN, P. (1979) “Increasing Returns, Monopolistic Competition, and International Trade,” *JIE*.
- (\*) HELPMAN, H. and P. KRUGMAN (1985), *Market Structure and Foreign Trade*, Cambridge, MIT Press, chapters 6-9.
- FEENSTRA, R. (2004), *Advanced International Trade. Theory and Evidence*. Chapter 5.

## 2 Firm Heterogeneity and International Trade

### 2.1 Basic models

- (\*\*) EATON, J. and S. KORTUM (2002), "Technology, Geography and Trade," *Econometrica*, September 2002, Vol. 70, No. 5, 1741-1780.
- (\*\*) MELITZ, Marc J. (2003), “The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity,” *Econometrica*, 71:6, pp. 1695-1725.
- (\*\*) CHANEY, Thomas (2005), “Distorted Gravity: Heterogeneous Firms, Market Structure and the Geography of International Trade,” *American Economic Review*, September 2008, Vol. 98, No. 4.
- (\*) BERNARD, Andrew B., Stephen REDDING, Peter K. SCHOTT (2007), “Comparative Advantage and Heterogeneous Firms,” *Review of Economic Studies*, vol 74, January.
- (\*) ARKOLAKIS, Costas (2008), "Market Penetration Costs and the New Consumers Margin in International Trade," *NBER* working paper 14214

- (\*) DONALDSON, Dave (2010), "Railroads of the Raj: Estimating the Impact of Transportation Infrastructure," *mimeo* MIT.
- (\*) ARMENTER, Roc and Miklós KOREN (2009), "Economies of Scale and the Size of Exporters," *mimeo*, Central European University.
- (\*) ARKOLAKIS, Costas, P. KLENOW, S. DEMIDOVA and A. RODRIGUEZ-CLARE (2008), "The Gains from Trade with Endogenous Variety" *American Economic Review Papers and Proceedings*, 98 (4), 444-450 and NBER working paper 13933.
- ARKOLAKIS, Costas, Arnaud COSTINOT and A. RODRIGUEZ-CLARE (2008), "New Theories, Same Old Gains?," *mimeo* MIT.
- HSIEH, Chang-Tai and Ralph OSSA, *mimeo* (coming soon) Chicago Booth.
- ALVAREZ, Fernando and LUCAS, Robert Jr. (2007) "General equilibrium analysis of the Eaton-Kortum model of international trade," *Journal of Monetary Economics*, Elsevier, vol. 54(6), pages 1726-1768, September.
- HOPENHAYN, Hugo (1992), "Entry, Exit, and Firm Dynamics in Long Run Equilibrium," *Econometrica*, 60: 621-653.
- YEAPLE, S. (2004), "A Simple Model of Firm Heterogeneity, International Trade and Wages," *Journal of International Economics*.

## 2.2 Adjustable mark-ups

- (\*\*) BERNARD, A.B., J. EATON, J.B. JENSEN and S. KORTUM (2003), "Plants and Productivity in International Trade", *American Economic Review*, Vol. 93, No. 4, September, pp. 1268-1290.
- (\*\*) MELITZ, Marc and Gianmarco OTTAVIANO (2008), "Market Size, Trade and Productivity", *Review of Economic Studies*, Blackwell Publishing, vol. 75(1), pages 295-316, 01.
- (\*) ATKESON, Andrew and Ariel BURSTEIN (2008) "Pricing to Market, Trade Costs, and International Relative Prices," *American Economic Review*, December 2008.
- VOGEL, Jonathan (2008) "Spatial Competition with Heterogeneous Firms," *Journal of Political Economy*, Volume 116, Number 3, June 2008.

- AUER, Raphael and Thomas CHANEY (2009), "Exchange Rate Pass-Through in a Competitive Model of Pricing-to-Market," *Journal of Money, Credit and Banking*, February 2009, Vol. 41, No. s1.
- HELPMAN, H. and P. KRUGMAN (1985), *Market Structure and Foreign Trade*: Chapter 6 (page 119).
- DORNBUSCH, Rudiger. (1987) "Exchange Rates and Prices." *American Economic Review*, 77, 93–106.

### 2.3 Multi-product firms

- (\*\*) BERNARD, Andrew B., Stephen REDDING, Peter K. SCHOTT (2009), "Multi-product Firms and Product Switching," *AER*.
- (\*\*) MELITZ, Marc J., Thierry MAYER and Gianmarco OTTAVIANO, (2009), "Market size, Competition, and the Product Mix of Exporters", *mimeo*.
- BERNARD, Andrew B., Stephen J. REDDING and Peter K. SCHOTT, 2006. "Multi-Product Firms and Trade Liberalization," *NBER Working Papers* 12782.
- BERNARD, Andrew B., J. Bradford JENSEN, Stephen J. REDDING and Peter K. SCHOTT, (2009). "The Margins of US Trade," *American Economic Review*, vol. 99(2), pages 487-93, May.

### 2.4 Empirics

#### The extensive margin of trade:

- (\*\*) EATON, Jonathan, Samuel KORTUM, and Francis KRAMARZ (2008), "An Anatomy of International Trade: Evidence from French Firms" *NBER Working Paper* #14610.
- (\*\*) HELPMAN, E., M. MELITZ and Y. RUBINSTEIN (2008), "Trading Partners and Trading Volumes," *Quarterly Journal of Economics*, Vol. 123, May 2008, pp. 441-487.
- (\*) BRODA, Christian and David WEINSTEIN (2006), "Globalization and the Gains from Variety," *Quarterly Journal of Economics*, May 2006, Vol. 121, No. 2, pp. 541-585.

- (\*) ALESSANDRIA, George, Joe KABOSKI and Virgiliu MIDRIGAN (2009), "Inventories, Lumpy Trade, and Large Devaluations," *AER* (forthcoming).
- HUMMELS and KLENOW (2005), "The Variety and Quality of a Nation's Exports," *American Economic Review* 95, June 2005, 704-723.

### **Firm/plant level productivity:**

- OLLEY, S. and A. PAKES (1996), "The dynamics of productivity in the telecommunications equipment industry," *Econometrica*.
- LEVINSOHN, J. and A. PETRIN (2003), "Estimating production functions using intermediate inputs to control for unobservables," *ReStud*.
- (\*\*) DE LOECKER, Jan (2007), "Do Exports Generate Higher Productivity? Evidence from Slovenia," *Journal of International Economics*, 73, September 2007, 69–98.
- (\*\*) PAVCNIK, N. (2002), "Trade Liberalization, Exit, and Productivity Improvements: Evidence from Chilean Plants", *The Review of Economic Studies* 69, January 2002, pp. 245-76.
- DE LOECKER, Jan (2009), "Product Differentiation, Multi-Product Firms and Estimating the Impact of Trade Liberalization on Productivity," *NBER WP # 13155*.
- 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).
- CLERIDES, S., S. LACH and J. TYBOUT (1998), "Is learning by exporting important? Micro-dynamic Evidence from Colombia, Mexico, and Morocco", *Quarterly Journal of Economics*, 113 (3), 903-47.
- BERNARD, A.B. and J.B. JENSEN (1999), "Exceptional Exporter Performance: Cause, Effect, or Both?" *Journal of International Economics*, 47(1), 1-25.

- BERNARD A. and J. B. JENSEN (2004), "Why Some Firms Export", *The Review of Economics and Statistics*, Vol. 86, No. 2.
- BERNARD, Andrew, J. Bradford JENSEN, and Peter K. SCHOTT (2005), "Importers, Exporters, and Multinationals: A Portrait of Firms in the U.S. that Trade Goods," *NBER Working Paper No. 11404*.

### 3 The Size Distribution of Firms

- (\*\*) SIMON H. and C. BONINI (1958), "The Size Distribution of Business Firms." *American Economic Review*, 48(4): 607-617.
- YULE, G. U. (1925). "A Mathematical Theory of Evolution, based on the Conclusions of Dr. J. C. Willis, F.R.S." *Philosophical Transactions of the Royal Society of London*, Ser. B 213: 21-87.
- (\*) SUTTON, J. (1997), "Gibrat's Legacy." *Journal of Economic Literature* 35(1): 40-59.
- (\*) SUTTON, John (2002), "The Variance of Firm Growth Rates: The Scaling Puzzle", *Physica A*, vol. 312, September 2002.
- (\*) AXTELL, R.L. (2001), "Zipf distribution of U.S. firm sizes," *Science*, 293: 1818-20.
- (\*\*) GABAIX, Xavier. (1999), "Zipf's law for cities," *Quarterly Journal of Economics* 114: 739-767.
- ARKOLAKIS, Costas. (2008), "Market penetration costs and trade dynamics," *mimeo* Yale University.
- ROSSI-HANSBERG, Esteban and Mark L. J. WRIGHT (2007), "Establishment Size Dynamics in the Aggregate Economy," December 2007, *American Economic Review*, 97:5, 1639-1666
- CHATTERJEE, Satyajit and Esteban ROSSI-HANSBERG (2008), "Spin-offs and the market for ideas," *mimeo* Princeton University.
- KORTUM, Sam (1997), "Research, Patenting, and Technological Change", *Econometrica*, 65(6), 1997, 1389-1419.
- (\*\*) EATON, Jonathan, and Sam KORTUM (1999), "International Technology Diffusion: Theory and Measurement," *International Economic Review*, 40(3), 1999, 537-570.

- DI GIOVANNI, Julian and Andrei LEVCHENKO (2009), "International Trade and Aggregate Fluctuations in Granular Economies," *RSIE Discussion Paper* 585 .

**Measurement issues:**

- (\*) GABAIX, Xavier and Rustam IBRAGIMOV (2009), "Rank-1/2: A Simple Way to Improve the OLS Estimation of Tail Exponents", forthcoming, *Journal of Business Economics and Statistics*.
- (\*) GABAIX, Xavier, Hernan MAKSE, Hernan ROZENFELD and Diego RYBSKI(2009)."The Area and Population of Cities: New Insights from a Different Perspective on Cities," *mimeo* NYU.

#### 4 International Trade and Labor Markets

- (\*\*) MATSUYAMA, Kiminori (2007), "Beyond Icebergs: Towards A Theory of Biased Globalization," *The Review of Economic Studies*, 74 (January 2007): 237-253.
- (\*) HELPMAN, Elhanan, Oleg ITSKHOKI and Stephen REDDING (2009), "Inequality and Unemployment in a Global Economy," *mimeo* Princeton.
- HELPMAN, Elhanan, Oleg ITSKHOKI and Stephen REDDING (2009), "Unequal Effects of Trade on Workers with Different Abilities," *mimeo* Princeton.
- HELPMAN, Elhanan and Oleg ITSKHOKI (2009), "Labor Market Rigidities, Trade and Unemployment," *mimeo* Princeton.
- (\*) COSTINOT, Arnaud and Jonathan VOGEL (2009), "Matching and Inequality in the World Economy", *mimeo* MIT.
- DAVIS, Donald and James HARRIGAN (2008), "Good Jobs, Bad Jobs, and Trade Liberalization" *mimeo* Columbia.
- VERHOOGEN, Eric (2008), "Trade, Quality Upgrading and Wage Inequality in the Mexican Manufacturing Sector," *QJE*.
- BUSTOS, Paula (2007), "The Impact of Trade on Technology and Skill Upgrading: Evidence from Argentina," *mimeo* CREI.
- FRIAS, Judith A., David S. KAPLAN and VERHOOGEN, Eric (2009), "Exports and Wage Premia: Evidence from Mexican Employer-Employee Data." *mimeo* Columbia.

## 5 Multinational Firms and Production

### 5.1 Technology driven FDI

- MARKUSEN, James R. (2002), *Multinational Firms and the Theory of International Trade*, Cambridge, MA: MIT Press.

#### The Proximity Concentration Trade-Off

- MARKUSEN, James R. (1984), "Multinationals, Multi-Plant Economies, and the Gains from Trade," *Journal of International Economics*, 16, pp. 205-226.
- MARKUSEN, James R. (1995), "The Boundaries of Multinational Enterprises and the Theory of International Trade," *Journal of Economic Perspectives*, 9:2, pp. 169-189.
- (\*) BRAINARD, S. Lael (1997), "An Empirical Assessment of the Proximity-Concentration Trade-off Between Multinational Sales and Trade," *American Economic Review*, 87:4, pp. 520-544.
- MARKUSEN J. and A. VENABLES (1998): "Multinational Firms and the New Trade Theory", *Journal of International Economics*, 46(2), 183-203.
- MARKUSEN, James R. and Anthony J. VENABLES (2000), "The Theory of Endowment, Intra-industry and Multi-national Trade," *Journal of International Economics*, 52, pp. 209-234.
- (\*\*) HELPMAN, Elhanan, Marc J. MELITZ, and Stephen R. YEAPLE (2004), "Exports versus FDI with Heterogeneous Firms," *American Economic Review*, 94:1, pp. 300-316.

#### Vertical FDI

- (\*\*) HELPMAN, Elhanan (1984), "A Simple Theory of International Trade with Multinational Corporations", *Journal of Political Economy*, 92:3, pp. 451-471.
- GARETTO, Stefania (2009), "Input Sourcing and Multinational Production," *mimeo* Boston University.
- (\*) YI, Kei-Mu (2003), "Can Vertical Specialization Explain the Growth of World Trade?" *Journal of Political Economy*, 111:1, pp.52-102.

- HANSON G., R. MATALONI and M. SLAUGHTER (2001), "Expansion Strategies of US Multinational Firms," in Dani Rodrik and Susan Collins (eds) *Brookings Trade Forum 2001*.

## 5.2 Refresher: the Theory of Organizations

- COASE, Ronald H. (1937), "The Nature of the Firm," *Economica*, 4:16, pp. 386-405.
- (\*\*) GROSSMAN, Sanford J., and Oliver D. HART (1986), "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration," *Journal of Political Economy*, 94:4, pp. 691-719.
- (\*) HOLMSTROM Bengt and Paul MILGROM (1994), "The Firm as an Incentive System," *American Economic Review*, 84:4, pp. 972-991.
- (\*) AGHION, Philippe and Jean TIROLE (1997), "Formal and Real Authority in Organizations," *The Journal of Political Economy*, Vol. 105, No. 1, pp. 1-29.
- TIROLE, Jean (1988), *The Theory of Industrial Organization*, Cambridge: MIT Press. Chapter 1.

## 5.3 The International Boundaries of Firms

- (\*\*) ANTRAS, Pol (2003), "Firms, Contracts, and Trade Structure," *Quarterly Journal of Economics*, 118 (4), pp. 1375-1418.
- (\*\*) ANTRAS, Pol (2005), "Incomplete Contracts and the Product Cycle," *American Economic Review*, Vol. 95, No. 4, pp. 1054-1073.
- (\*) ANTRAS, Pol and Elhanan HELPMAN (2004), "Global Sourcing," *Journal of Political Economy*, 112:3, pp. 552-580.
- GROSSMAN, G.M. and HELPMAN, E. (2002), "Integration vs. Outsourcing in Industry Equilibrium," *Quarterly Journal of Economics* 117 (1), 85-120.
- GROSSMAN, G.M. and HELPMAN, E. (2005), "Outsourcing in a Global Economy," *Review of Economic Studies*, 72:1, pp. 135-159.

## 5.4 Offshoring of production

- (\*) ANTRAS, Pol, Luis GARICANO and Esteban ROSSI-HANSBERG (2006), "Offshoring in a Knowledge Economy," *Quarterly Journal of Economics*, February 2006.
- (\*) GROSSMAN, Gene M. and Esteban ROSSI-HANSBERG (2009), "Trading Tasks: A Simple Theory of Offshoring," December 2008, *American Economic Review*, 98:5, 1978–1997.
- GROSSMAN, Gene M. and Esteban ROSSI-HANSBERG (2009), "Task Trade between Similar Countries," *mimeo* Princeton.
- (\*) NOCKE, Volker and Stephen YEAPLE (2004), "An Assignment Theory of Foreign Direct Investment," *mimeo* UPenn.
- ROSSI-HANSBERG, Esteban (2005), "A Spatial Theory of Trade," *American Economic Review*, 95:5, pp. 1464-1491.

## 6 Historical Landmarks - Institutions and Trade

### Some historical landmarks in international macro:

- (\*\*) DORNBUSCH, Rudiger (1976), "Expectations and Exchange Rate Dynamics," *The Journal of Political Economy*, Vol. 84, No. 6. (Dec., 1976), pp. 1161-1176.
- (\*) SALANT, Stephen W. and Dale W. HENDERSON (1978), "Market Anticipations of Government Policies and the Price of Gold," *The Journal of Political Economy*, Vol. 86, No. 4. (Aug., 1978), pp. 627-648.
- (\*) KRUGMAN, Paul (1979), "A Model of Balance-of-Payments Crises," *Journal of Money, Credit and Banking*, Vol. 11, No. 3. (Aug., 1979), pp. 311-325.

### Institutions and trade:

- GROSSMAN, Gene M. and Giovanni MAGGI (2000), "Diversity and Trade," *American Economic Review*, 90:5, pp. 1255-1275.
- COSTINOT, Arnaud (2009), "On the Origins of Comparative Advantage," *Journal of International Economics*, 2009, vol. 77, issue 2, pages 255-264

- DO, Quy-Toan and Andrei LEVCHENKO (2009), "Trade, Inequality, and the Political Economy of Institutions," *Journal of Economic Theory*, 144:4 (July 2009), 1489-1520.
- LEVCHENKO, Andrei (2007), "Institutional Quality and International Trade," *Review of Economic Studies*, 74:3 (July 2007), 791-819.