

Economics 507-b
International Trade
Spring 2008
Professor Kala Krishna Tel: 865-1106
Class times: Tuesdays and Thursdays 4:15-5:30 p.m. in 403 Kern

This course deals with international trade theory, policy and evidence at a graduate level. The aim of the course is to give students some idea about the kind of issues that are important in policy and how International Trade helps understand them. It will be assumed that students have taken the graduate courses in microeconomic theory or have the equivalent background. Students who have any doubt about their ability to deal with the course should see me.

This is a two semester course starting in the fall semester. This course covers a number of areas not covered in the fall by Professor Tybout. The first third develops some applications of the models used in international trade from the classic ones to the latest variations on them using insights from recent work on assortative matching, indivisibilities in consumption and complementarities and multiple equilibria. The second third covers policy including customs unions, trade policy and how policy is made, i.e., the political economy angle. The last third covers a few topics which will be chosen according to the interests of the class. The aim is to get to recent work fast without ignoring the basics.

Course Requirements:

Class Presentation: 20%
Midterm Exam: 30%
Final Exam: 30%

For the class presentation you need to choose a paper, on or off the reading list, clear it with me, and present it in class. Make your choice as soon as possible.

Required readings are indicated by an asterisk(*). If you plan on working in the area, you might want to buy some or all of these books since they are used a lot.

Bagwell, K. and R. Staiger, *The Economics of the World Trading System* (MIT Press, 2002).

Bhagwati, J.N. (ed.), *International Trade: Selected Readings* (MIT Press, 1985).

*Dixit, A.K. and V. Norman, *Theory of International Trade* (Cambridge University Press, 1980).

*Feenstra, R., *Textbook* (Princeton University Press, 2003).

Grossman, G. and E. Helpman, *Special Interest Politics* (Cambridge MA and London UK: The MIT Press, 2001).

Grossman, G. and E. Helpman, *Interest Groups and Trade Policy* (Princeton and Oxford UK: Princeton University Press, 2002).

Grossman, G. and E. Helpman, *Innovation and Growth in the Global Economy* (MIT Press, 1991).

Helpman, E. and P. Krugman, *Market Structure and Foreign Trade* (MIT Press, 1984).

Helpman, E. and P. Krugman, *Trade Policy and Market Structure* (MIT Press, 1989).

Leamer, E., *Sources of International Comparative Advantage* (MIT Press, 1984).

Krugman, P., *Geography and Trade* (MIT Press, 1991).

Vousden, N., *The Economics of Protection* (Cambridge University Press, 1990).

Some useful collections of readings are:

Jones, R.W. and P.B. Kenen (eds.), *Handbook of International Economics, Vol. 1* (North-Holland, 1984).

*Grossman, G.M. and K. Rogoff (eds.), *Handbook of International Economics, Vol. 3* (North-Holland, 1995).

Greenaway, D. and L.A. Winters (eds.), *Surveys in International Trade* (Blackwell, 1994).

Grossman, G.M. (ed.), *Imperfect Competition and International Trade* (MIT Press 1992).

The following abbreviations are used for journal titles:

AER American Economic Review

BPEA Brookings Papers on Economic Activity

CJE Canadian Journal of Economics

EMA Econometrica

EJ Economic Journal

IER International Economic Review

EER European Economic Review

JDE Journal of Development Economics

JIE Journal of International Economics

JITED Journal of International Trade and Economic Development

JPE Journal of Political Economy

QJE Quarterly Journal of Economics

ReStud Review of Economic Studies

RIE Review of International Economics

WBEB World Bank Economic Review

Reading List

I. Applications of Simple Models

(a) Applications of Duality: The Gains From Trade

*Dixit and Norman, *Theory of International Trade*, chapter 3.

*Dixit and Norman, "Trade Gains Without Lump Sum Compensation," *JIE*, 21, pp. 111-122. Also see "Comment" by Kemp and Wan and "Reply" by Dixit and Norman in later volumes.

Ju, J. and K. Krishna (2000), "Evaluating Trade Reform with Many Consumers," *Canadian Journal of Economics*, Vol. 33, No. 3, pp. 787-798.

(b) Applications of Ricardian Models

Krugman, P. (1987), "The Narrow Moving Band, The Dutch Disease, and the Competitive Consequences of Mrs. Thatcher," *JDE*, Vol. 27, pp. 41-55.

*Ethier, W. (1982), "Decreasing Costs in International Trade and Frank Graham's Argument for Protection," *EMA*, September.

Melitz, Marc and Alejandro Cunat (2007), "Volatility, Labor Market Flexibility and Comparative Advantage," NBER Working Paper #13062.

*Krishna, K. and C. Yavas (2002), "When Does Trade Hurt: Market, Transition and Developing Economies," <http://econ.la.psu.edu/~kkrishna/trade.pdf>; *American Economic Review* (2003), Vol. 93, No. 4, September, pp. 1268-1290.

Cunat, A. and M. Melitz (2007), "Volatility, Labor Market Flexibility and Comparative Advantage," NBER Working Paper #13062.

*Garicano, Luis and Esteban Rossi-Hansberg (2006), "Organization and Inequality in a Knowledge Economy," *Quarterly Journal of Economics*, Vol. 121, No. 4, pp. 1383-1435.

*Rossi-Hansberg, E. and G. Grossman. "Trading Tasks: A Simple Theory of Offshoring."

*Leamer, Edward (1999), "Effort, Wages and the International Division of Labor," *JPE*, Vol. 107, No. 6, December, pp. 1127-1162.

*Brander, J. and Scott M. Taylor (1998), "The Simple Economics of Easter Island: A Ricardo-Malthus Model of Renewable Resource Use," *AER*.

*Ohnsorge, Franziska and Daniel Treffer (2004), "Sorting it Out: International Trade and Protection with Heterogeneous Workers," NBER Working Paper No. 10959.

Matsuyama, Kiminori (2002), "The Rise of Mass Consumption Societies," *Journal of Political Economy*, Vol. 110, pp. 1035-1070.

Antras, Pol, L. Garicano and E. Rossi-Hansberg (2006), "Organizing Offshoring: Middle Managers and Communication Costs," Mimeo.

(c) Applications of Heckscher-Ohlin Models: Rigid wages, environment, capital market imperfections

*Davis, Donald (1998), "Does European Unemployment Prop Up American Wages? National Labor Markets and Global Trade," *American Economic Review*, Vol. 88, No. 3, June, pp. 478-494.

*Chesnokova, T. and K. Krishna (2004), "Skill Acquisition, Credit Constraints, and Trade," Mimeo.

Antras, P. and Ricard Caballero (2007), "Trade and Capital Flows: A Financial Frictions Perspective."

*Ranjan, P. (2001), "Dynamic Evolution of Income Distribution and Credit-Constrained Human Capital Investment in an Open Economy," *Journal of International Economics*, Vol. 55, pp. 329-358.

*Antweiler, W., B. Copeland and M.S. Taylor (2001), "Is Free Trade Good for the Environment?" NBER WP. No. 6707; *AER*, September.

*Copeland, B. and M.S. Taylor (2001), "International Trade and the Environment: A Framework for Analysis," NBER WP 8540.

Brock, W. and S. Taylor, "Economic Growth and the Environment: Matching the Stylized Facts," <http://econ.ucalgary.ca/fac-files/st/wp2003-16.pdf>

Brock, W. and S. Taylor, "The Green Solow Model," <http://econ.ucalgary.ca/fac-files/st/theGreenSolowModel.pdf>.

Grossman, G. and A. Krueger, "Environmental Impacts of a North American Trade Area," NBER Working Paper No. 3914. In P. Garber (ed.), *U.S. Mexico Free Trade Agreement* (MIT Press, 1994).

Copeland, B. and M.S. Taylor (1995) "Trade and Transboundary Pollution," *AER*, Vol. 85, No. 4, September, pp. 716-737.

Copeland, B. and M.S. Taylor, "Free Trade and Global Warming: A Trade Theory View of the Kyoto Protocol," Mimeo.

Taylor, M.S. (1994), "TRIPs, Trade and Growth," *IER*, Vol. 35, No. 2, May, pp. 361-381.

(d) General Factor-Proportions Theory and Extensions, The Factor Content of Trade

*Ethier, W., "Higher Dimensional Trade Theory," in Jones and Kenen (eds.), *Handbook*, Vol. 1, Ch. 3.

*Helpman, E. (1984), "The Factor Content of Foreign Trade," *EJ*.

(e) The Specific-Factors Model

*Dixit and Norman, pp. 38-41.

Krishna, K., Cemile Yavas and Abhiroop Mukhopadhyay (2005), "Trade with Labor Market Distortions and Heterogeneous Labor: Why Trade Can Hurt?" In G.S. Heiduk and K.-Y. Wong (eds.), *WTO and World Trade: Challenges in a New Era* (Heidelberg, Germany: Physica-Verlag).

2. Trade Policy With Perfect Competition

(a) Optimal Policies

*Bhagwati, J.N., "The Generalized Theory of Distortions and Welfare," in Bhagwati, *Readings*.

Lerner, A.P., "The Symmetry Between Import and Export Taxes," *Economic Journal*, Vol. 3, No. 11, pp. 306-313. Reprinted in Caves and Johnson (eds.) *Readings in International Economics*.

(b) Piecemeal Policy Reform

*Anderson, J. and P. Neary (1992), "Trade Reform with Quotas, Partial Rent Retention, and Tariffs," *Econometrica*, January, pp. 57-76.

Anderson, J. and P. Neary, "Welfare Versus Market Access: The Implications of Tariff Structure for Tariff Reform."

Ju, J. and K. Krishna (2000), "Welfare and Market Access Effects of Piecemeal Policy Reform," *JIE*, Vol. 51, pp. 305-316.

*Dixit, A. (1985), "Tax Policy in Open Economies" in A. Auerbach and M. Feldstein (eds.) *Handbook of Public Economics*, chapter 6 in Vol. I, pp. 176-191 (North Holland).

*Dixit and Norman, Chapter 5, pp. 149-163; Chapter 6, pp. 165-175.

Ju, J. and K. Krishna (2000), "Necessary Conditions for Welfare Improving Reform," *Economics Letters*, Vol. 67, pp. 173-178.

(c) Effective Protection

*Dixit and Norman, pp. 184-186.

Ethier, W. (1977), "The Theory of Effective Protection in General Equilibrium: Effective-Rate Analogues of Nominal Rates," *CJE*, May.

(d) Quotas and Results Oriented Policies

*Krishna, K. and L.H. Tan. "Trade Policy with Heterogeneous Traders: Do Quotas Get a Bum Rap?" (pdf version)

*Krishna, K. and L.H. Tan (1999), "Transferable versus Non Transferable Licenses: What is the Difference?" *International Economic Review*, Vol. 40, No. 4, pp. 785-800.

*Krishna, K. and John Morgan (1998), "Implementing Results-Oriented Trade Policies: The Case of the US-Japanese Auto Parts Dispute," *European Economic Review*, Vol. 42, pp. 1443-1467.

Krishna, K. (1987), "Tariffs vs. Quotas with Endogenous Quality," *Journal of International Economics*, Vol. 23, pp. 97-122.

Krishna, K. and L. H. Tan (1998), *Rags and Riches: Implementing Apparel Quotas Under the MFA* (University of Michigan Press).

(d) Dumping and Countermeasures

*Bagwell, Kyle, Petros Mavroidis and Robert Staiger (2008), "The Case for Auctioning Countermeasures in the WTO," *Journal of International Economics* (forthcoming).

Staiger, R. and F. Wolak (1994), "Measuring Industry Specific Protection: Antidumping in the United States," *BPEA, Microeconomics*, pp. 51-103.

*Prusa, T., (1992), "Why are so Many Antidumping Petitions Withdrawn?" *JIE*, Vol. 33, pp. 339-342.

Feenstra, R.C., "Voluntary Export Restraints in U.S. Autos, 1980-81: Quality, Employment and Welfare Effects," in Baldwin and Krueger (eds.), *The Structure and Evolution of Recent U.S. Trade Policy*.

III. Imperfect Competition and Trade: General Equilibrium

*Romalis, John, "Factor Proportions and the Structure of Commodity Trade," *American Economic Review*, Vol. 94, No. 1, March, pp.67-97.

*Kee, Hiau Looi and K. Krishna (2008), "Firm Level Heterogeneous Productivity and Demand Shocks: Evidence from Bangladesh," *AER, Papers and Proceedings*, (forthcoming).

*Demidova, Svetlana, H.L. Kee and K. Krishna (2008), "Do Trade Policy Differences Induce Sorting? Theory and Evidence From Bangladeshi Apparel Exporters," Mimeo.

IV. Trade Policy With Imperfect Competition

Brander, J. "Strategic Trade Policy," Ch. 27 in the Handbook.

*Brander, J. and P. Krugman (1983), "A Reciprocal Dumping Model of International Trade," *JIE* Vol. 15, pp. 313-332. Also in Grossman (ed.) volume.

*Eaton, J. and G. Grossman (1983), "Optimal Trade and Industrial Policy Under Oligopoly," NBER Working Paper No. 1236.

Krishna, K. and M. Thursby (1991), "Optimal Policies with Strategic Distortions," *Journal of International Economics*, Vol. 31, pp. 281-308.

*Krishna, K. (1989), "Trade Restrictions as Facilitating Practices," *JIE*, Vol. 26, pp. 251-270.

Krishna, K. and M. Itoh, "Content Protection and Oligopolistic Interactions," *ReStud*, Vol. LV, pp. 107-125.

*Krishna, K. and J. Morgan (1998), "Implementing Results Oriented policies: The Case of the U.S. Japan Auto-Parts Dispute," *EER*.

*Krishna, K. (1990), "The Case of the Vanishing Revenues: Auction Quotas with Monopoly," *AER*, September.

V. Political Economy of Protectionism

*Grossman, G. and E. Helpman (1994), "Protection for Sale," *AER*, Vol. 84, No. 4, pp. 833-850.

*Rodrik, D., "Political Economy of Trade Policy" in *Handbook of International Economics*, Vol. 3, Ch. 28.

*Fernandez, R. and D. Rodrik (1991), "Resistance to Reform: Status Quo Bias in the Presence of Individual-Specific Uncertainty," *AER*, Vol. 81, December, pp. 1146-55.

*Grossman, G. and E. Helpman (2001), *Special Interest Politics* (Cambridge MA and London UK: The MIT Press).

*Grossman, G. and E. Helpman (2002), *Interest Groups and Trade Policy* (Princeton and Oxford UK: Princeton University Press).

*Trefler, D. (1993), "Trade Liberalization and the Theory of Endogenous Protection: An Econometric Study of U.S. Import Policy," *JPE*, Vol. 10, No. 1, February, pp. 138-160.

*Katayama, Hajime, Susumu Imai and K. Krishna (2007), "Protection for Sale or Surge Protection?" NBER Working Paper No.

*Imai, S., H. Katayama and K. Krishna (2008), "A Quantile-based Test of Protection for Sale Model," Mimeo.

Gawande, Kishore and Pravin Krishna, "The Political Economy of Trade Policy: Empirical Approaches," *Survey in the Handbook of International Trade*, Jim Harrigan (ed.), forthcoming.

Helpman, E. (1997), "Politics and Trade Policy" in D.M. Krepps and K.F. Wallis (eds.), *Advances in Economics and Econometrics: Theory and Applications*, Vol. II (Cambridge University Press).

*Matsuyama, K., "Perfect Equilibrium in a Trade Liberalization Game."

VI. Customs Unions, FTAs and the GATT/WTO

*Limao, Nuno (2006), "Preferential Trade Agreements as Stumbling Blocks for Multilateral Trade Liberalization: Evidence for the U.S.," *American Economic Review*, Vol. 96, No. 3, June, pp. 896-914.

*Horn, Henrik, Giovanni Maggi and R. Staiger, "Trade Agreements as Endogenously Incomplete Contracts," Mimeo.

*Maggi, G. and Andres Rodriguez-Clare (1998), "The Value of Free Trade Agreements in the Presence of Domestic Political Pressures," *JPE*, Vol. 106, No. 3, pp. 574-601.

*Antras, P., Philippe Aghion and E. Helpman (2007), "Negotiating Free Trade," *Journal of International Economics*, Vol. 73, No. 1, September, pp. 1-30.

*Levy, P. (1997), "A Political-Economic Analysis of Free Trade Agreement," *AER*, September, pp. 506-519.

Krishna, P. (1998), "Regionalism and Multilateralism: A Political Economy Approach," *QJE*, Vol. 113, No. 1, pp. 227-251.

*McLaren, J. (2002), "A Theory of Insidious Regionalism," *QJE*, Vol. 117, No. 2, pp. 571-608.

*McLaren, J., "Size, Sunk Costs and Judge Bowker's Objection to Free Trade," *AER*, Vol. 87, No. 3, pp. 400-420.

*Dixit and Norman, Chapter 6, pp. 191-194.

*Caplin, A. and K. Krishna, "Tariffs and the MFN Clause: A Game Theoretic Approach," *Seoul Journal of Economics*, Vol. 1, No. 3, pp. 267-290.

Bagwell, K. and R. Staiger (2002), *The Economics of the World Trading System* (MIT Press).

*Baldwin, R. and A. Venables, "Regional Economic Integration" in *Handbook*, Ch. 31.

*Krishna, K. (2006), "Understanding Rules of Origin" in *The Origin of Goods: Rules of Origin in Regional Trade Agreements*, Estevadeordal, et al. (eds.) (Oxford University Press)

*Krishna, K. (2004), "Conditional Policies in General Equilibrium," Mimeo.

VII. Assorted Topics

(a) Credit Constraints and Trade

Clingingsmith, D. and J. Williamson, "India's Deindustrialization Under British Rule: New Ideas, New Evidence," NBER Working Paper 10586.

*Banerjee, A. and A. Newman (1993), "Occupational Choice and the Process of Development," *Journal of Political Economy*, April.

Galor, O. and J. Ziera (1993), "Income Distribution and Macroeconomics," *ReStud*, Vol. 60, pp. 35-52.

*Tchesnokova, T. (2003), "Trade and Welfare in a Dynamic Model with Credit Constraints," Ph. D. Thesis, The Pennsylvania State University.

*Matsuyama, K. (2004), "Financial Market Globalization, Symmetry Breaking and Endogenous Inequality of Nations," *Econometrica*.

(b) Contracting and Trade

*McLaren, J. (2000), "'Globalization' and Vertical Structure," *AER* (December), pp. 1239-1254.

McLaren, J. (1999), "Supplier Relations and the Market Context: A Theory of Handshakes," *JIE*, Vol. 48, No. 1 (June), pp. 121-138.

*Grossman, G. and E. Helpman (2004), "The Distribution of Talent and the Pattern and Consequences of International Trade," *Journal of Political Economy*, Vol. 112, No. 1, Part 1, February.

Antras, P., "Incomplete Contracts and the Product Cycle," *AER* (forthcoming).

(c) Initial Conditions and Final Outcomes

*Krugman, P. (1991), "History versus Expectations," *QJE*, Vol. CVI, No. 2, May, pp. 651-667.

*Matsuyama, K. (1991) "Increasing Returns, Industrialization, and the Indeterminacy of Equilibrium," *QJE*, Vol. CVI, No. 2, May, pp. 617-650.

*Matsuyama, K. (2004), "Financial Market Globalization, Symmetry Breaking and Endogenous Inequality of Nations," *Econometrica*.

*Morris S. and Hyun Song Shin (1998), "Unique Equilibrium in a Model of Self-Fulfilling Attacks," *American Economic Review*, Vol. 88, pp. 587-597.

Heinemann, Frank (2000), "Unique Equilibrium in a Model of Self-Fulfilling Currency Attacks: Comment." *American Economic Review*, Vol. 90, No. 1, pp. 316-318.

(d) Geography and Trade

*Krugman, P. (1991), *Geography and Trade* (MIT Press).

*Davis, D. (1998), "The Home Market, Trade and Industrial Structure," *AER*, December, pp. 1264-1276.

*Ottaviano, G., T. Tabuchi and J.F. Thisse (2002), "Agglomeration and Trade Revisited," *International Economic Review*, Vol. 43, pp. 409-436.

*Baldwin, Richard, et al. (2004), *Economic Geography and Public Policy* (Princeton University Press).

(e) Adjustment Costs, Hysteresis and Pass-through

Dixit, A. (1989), "Hysteresis, Import Penetration, and Exchange Rate Pass-Through," *QJE*, May.

*Baldwin, R. and P. Krugman (1989), "Persistent Trade Effects of Large Exchange Rate Shocks," *QJE*, Vol. 104, No. 4, November, pp. 635-654.

*Baldwin, R. and P. Krugman (1987), "Persistence of the U.S. Trade Deficit," *BPEA*, Vol. 0, No. 1, pp. 1-43.

Baldwin, R. (1988), "Hysteresis in Import Prices: The Beach-head Effect," *AER*, Vol. 78, No. 4, September, pp. 773-785.

(f) Measurement Issues

*Anderson, J. and J. P. Neary (1996), "A New Approach to Evaluating Trade Policy," *ReStud*, Vol. 63, No. 1, January, pp. 107-125.

*Romer, P. (1994), "New Goods, Old Theory and the Welfare Costs of Trade Restrictions," *JDE*, Vol. 43, No. 1, February, pp. 5-77.

*Feenstra, R. (1994), "New Product Varieties and the Measurement of International Prices," *AER*, Vol. 84, No. 1, March, pp. 157-177.

(g) R&D and Growth

*Grossman, G. and Edwin Lai, "International Protection of Intellectual Property," <http://www.princeton.edu/~grossman/Ipr082902.pdf>.

*Grossman, G. and E. Helpman (1991), *Innovation and Growth in the Global Economy* (MIT Press).

Academic Integrity: Dishonesty of any kind is not tolerated in this course. Dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with academic work of other students. Students who are found dishonest will receive the most severe academic sanction consistent with PSU policies. A minimum penalty for any breach of academic integrity is the grade of “F” for the course. The Department of Economics has information at its web site (<http://econ.la.psu.edu/> click on “undergraduate program” and then click on “academic integrity”). Be sure to read the contents of this site.

Valid Excuses: Guidelines for the Department of Economics, Penn State University

The text below has been directly obtained from the Department of Economics web-page. For the full version, see <http://www.econ.psu.edu/undergraduate/index.html#valid>

During the course many possible situations may arise that would result in your inability to attend class, attend exams, or perform at a minimally acceptable level during an examination. Illness or injury, family emergencies, certain University-approved curricular and extra-curricular activities, and religious holidays can be legitimate reasons to miss class or to be excused from a scheduled examination.

In the case of your own illness or injury, confirmation from a physician, physician’s assistant, a nurse-practitioner, or a nurse is required. . . . Further, barring extraordinary circumstances, the confirmation must be available to the instructor prior to the missed course event.

With regard to family emergencies, you must provide verifiable documentation of the emergency. Unless the emergency is critical you should notify the instructor in advance of your absence from the scheduled course event. In cases of critical emergencies, you must notify the instructor within one week of your absence.

For University-approved curricular and extra-curricular activities, verifiable documentation is also required. The student should obtain from the unit or department sponsoring the activity a letter (or class absence form) indicating the anticipated absence(s). The letter must be presented to the instructor at least one week prior to the first absence.

In the case of religious holidays, the student should notify the instructor by the third week of the course of any potential conflicts.

DISABILITY MESSAGE: The Pennsylvania State University encourages qualified people with disabilities to participate in its programs and activities and is committed to the policy that all people shall have equal access to programs, facilities, and admissions without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. If you anticipate needing any type of accommodation in this course or have questions about physical access let me know as soon as possible.