ECO 7705: International Trade Theory

Florida International University

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***Course objectives***

In this course we will study the major developments in international trade models and trade policy issues principally over the course of the last two hundred years (we are ambitious!).

***Course Requirements***

Mid-term exam (30%), Final Exam (30%), Problem Sets (30%), Class participation and presentation (10 %) (The presentation requirement: You will present an assigned paper, most likely empirical, in class.)

***Books***

We are not using any specific textbook. The following are highly recommended.

1. Feenstra, *Advanced international trade: theory and evidence* (Princeton University Press), 1st or 2nd edition.

This is a standard textbook. Pros: It covers both theory and empirical stuff. Cons: On many topics it does not go deep enough.

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

This is a great book. Pros: More a monograph than a textbook. A very thorough treatment of general equilibrium models using duality. Cons: More a monograph than a textbook. No empirical stuff. No discussion of more recent developments, i.e., the Melitz model (2003) although it has a very nice discussion of monopolistic competition.

3. Markusen et al., 1996, International Trade (McGraw-Hill)

This is a Master’s level textbook. Pros: Both theory and econometrics. Solid foundations of general equilibrium modeling. Free at

<http://spot.colorado.edu/~markusen/textbook.html>)

Cons: The production-utility functions approach. No discussions of the recent development

*Books on specific topics*

4. Helpman, 2011, *Understanding global trade* (MIT Press)

A good review of the literature.

5. Helpman and Krugman, 1985, *Market structure and foreign trade* (MIT)

6. Helpman and Krugman, 1987, *Trade policy and market structure* (MIT)

Excellent treatments of monopolistic competition (especially #5).

7. Combes, Mayer and Thisse, 2008, *Economic geography* (Princeton)

A thorough treatment of new economic geography and trade.

8. Markusen, J. M. 2002, *Multinational firms and the theory of international trade* (MT Press).

An exploration into this messy but important subject using oligopoly models. There is a downloadable file of this book.

9. Grossman and Helpman, 1991, *Innovation and growth in the global economy* (MIT)

A complete treatment of endogenous growth models in international trade contexts. (we will not have time to cover this topic.)

10. Bagwell and Staiger, 2002, *The economics of the world trading system* (MIT Press)

The standard and influential book on the world trading system and WTO rules. (We will not have time to cover this topic.)

*Surveys*:

*Handbook of international economics*; volume 1 (1988), volume 3 (1997) and volume 4 (2012) (North-Holland) contain useful surveys on various topics.

*General books on writing and doing research:*

Williams, Joseph, 1990, *Style: towards clarity and grace* (Chicago)

Wayne Booth, G. G. Colomb and J. M. Williams, 1995, *The craft of research* (Chicago)

Helpful in writing dissertations.

*Finally, fun readings to broaden your intellectual horizons:*

Irwin, D., 1992, *Against the tide: an intellectual history of free trade* (MIT)

Irwin, D., 2015, *Free trade under fire* (Princeton), 4th ed.

Bernstein, 2008, *A splendid exchange: how trade shaped the worl*d (Atlantic Monthly)

***Course outline and readings***

Below is a partial list of readings. Required readings will be discussed in class. Suggested readings come in two types. One is for you to expand your knowledge of theoretical models on your own. Some of them may also be discussed in class. The second collects empirical works, most of which however are not discussed here. Additional articles may be assigned, depending on the progress we make during the semester.

*Journal names and abbreviations*

AEJ: American Economic Journal:

AER: American Economic Review

CJE: Canadian Journal of Economics

ECM Econometrica

EL: Economics Letters

EJ: Economic Journal

IER: International Economic Review

JDE: Journal of Development Economics

JEP: Journal of Economic Perspectives

JIE: Journal of International Economics

JPE: Journal of Political Economy

JRS: Journal of Regional Science

QJE: Quarterly Journal of Economics

RES: Review of Economic Studies

SJE: Scandinavian Journal of Economics

TWE: The World Economy

***Part I: Trade models and trade policy***

***0. Introduction***

Recommended

Friedman, 1953, The methodology of positive economics, in *Essays in positive economics*. <http://digamo.free.fr/hausman82.pdf#page=76>

von Neumann, Morgenstern, 1944, *The theory of games and economic behavior*, chapter 1.

Stephen Hawking, 1998, *A brief history of time*, chapter 1.

***1. Pure exchange model***

Required readings: Chapters on demand theory, expenditure functions and welfare economics in any graduate micro textbook (e.g., Mas-Colell et al., Varian).

Recommended:

Dixit and Norman, 1980, *Theory of international trade,* chapter 2 and the appendix

Johnson, 1953, Optimum tariffs and retaliation, *RES*

***2. Ricardian model***

Required:

Deardorff, 2007, The Ricardian model

<http://www-personal.umich.edu/~alandear/courses/441/handouts/Deardorff-RicardianModel.pdf>

Dornbusch, Fischer, and Samuelson, 1977. Comparative advantage, trade and payments in a Ricardian model with a continuum of goods, AER; sections 1 – 3.

Matsuyama, 2000, A Ricardian model with a continuum of goods under nonhomothetic preferences: demand complementarities, income distribution, and North-South trade, JPE.

Recommended: theory

Bougheas et al, 1999, Infrastructure, transport costs and trade, JIE (this has empirical work too)

Brezis, Krugman, and Tsiddon., 1993, Leapfrogging in international competition: a theory of cycles in national technological leadership, AER

Flam and Helpman, 1987, North-South trade, AER

Krugman, 1987, The narrow moving band, the Dutch disease, and the competitive consequences of Mrs. Thatcher, JDE

Krugman, 1979, A model of innovation, technology transfer, and the world distribution of income, JPE

Recommended: empirical

Eaton and Kortum, 2002, Technology, geography and trade, *EMC*

Fieler, 2011, Nonhomotheticity and bilateral trade: evidence and a quantitative explanation, *EMC*

***3. Factor-proportions model (Heckscher-Ohlin-Samuelson)***

Required readings

Jones, 1965, The structure of simple general equilibrium models, JPE

Recommended: theory

Bougheas and Riezman, 2007, Trade and the distribution of human capital,JIE.

Dornbusch. Fischer, and Samuelson, 1980, Heckscher-Ohlin trade theory with a continuum of goods, QJE.

Krugman, 2000, Trade, technology and factor prices, *JIE*

Dixit, Grosman, 1982, Trade and protection with multistage production, RES

Woodland, 1977, A dual approach to equilibrium in the production sector in international trade theory, CJE.

Xu, 1993, A general model of comparative advantage with two factors and a continuum of goods, IER.

Recommended: empirical:

Bernhofen and Brown, 2016, Testing the general validity of the Heckscher-Ohlin Theorem, *AEJ: Micro.*

***4. Multi-sector, multi-factor trade model***

Required readings:

Deardorff, 1980, The general validity of the law of comparative advantage, JPE

Recommended: theory

Costinot, 2009, An elementary theory of comparative advantage, *EMC*

Recommended: empirical

Bernhofen and Brown, 2004, A direct test of the theory of comparative advantage: the case of Japan, JPE

Bernhofen and Brown, 2005, An empirical assessment of the comparative advantage gains from trade: evidence from Japan, AER

Bernstein and Weinstein, 2002, Do endowments predict the location of production? JIE

***5. Trade policy under perfect competition***

Required

Copeland and Taylor, 1994, North-South trade and the environment, AER

Recommended: theory

Copeland and Taylor, 1999, Trade, spatial separation, and the environment, JIE

Copeland and Taylor, 2004, Trade, growth, and the environment, JEL

Johnson, 1954, Optimum tariffs and retaliation, RES

Kennan and Riezman, 1988, Do big countries win trade wars?, IER

Syropoulos, 2002, Optimum tariffs and retaliation revisited: how country size matters, RES

Recommended: empirical

Amitl and Konings, 2007, Trade liberalization, intermediate inputs, and productivity, evidence from Indonesia, AER

Broda, Liamo, Weinstein, 2008, The optimal tariffs and market power: the evidence, AER

Antweiler, Copeland and Taylor, 2001, Is free trade good for the environment? AER

***6. Endogenous trade policy***

Required:

Grossman and Helpman, 1994, Protection for sale, AER

Mayer, W., 1984, Endogenous tariff formation, AER

Recommended: theory

Dixit, Grossman and Helpman, 1997, Common agency and coordination: general theory and application to government policymaking, JPE

Grossman and Helpman, 1995, The politics of free-trade agreement, AER

Helpman, 1997, Politics and trade policy, in Kreps and Wallis, eds, *Advances in economics and econometrics: theory and applications*: Seventh World Congress (Econometric Society Monograms) vol. 1 (Cambridge)

Recommended: empirical

Evans, Sherlund, 2011, Are antidumping duties for sale? Case-level evidence on the Grossman-Helpman protection for sale model, SEJ

Dutt, Mitra, 2002, Endogenous trade policy through majority voting: an empirical investigation, JIE

Gawande, 1998, Comparing endogenous theories of protection: model comparisons using Gibbs sampling output, RESat

Gawande and Bandyopadhyay, 2000, Is protection for sale? evidence on the Grossman-Helpman theory of endogenous protection, *REStat*

Goldberg and Maggi, 1999, Protection for sale: an empirical investigation, AER

Trefler, 1993, Trade liberalization and the theory of endogenous protection: an econometric study of U.S. import policy, JPE

***7. Trade under international oligopoly***

Required

Brander and Krugman, 1983, A ‘reciprocal’ dumping model of international trade, JIE

Recommended: theory

Miyagiwa and Sato, 2014, Free entry and regulatory competition in a global economy, *Journal of Public Economics*

### Neary, 2010, Two and half theories of trade, *The World Economy*

Neary, 2016, International trade in general oligopolistic equilibrium, *Review of International Economics*

### Venables, 1985, Trade and trade policy with imperfect competition: the case of identical products and free entry, JIE

Recommended: empirical

Bernhofen, 1999, Intra-industry trade and strategic interaction: theory and evidence, JIE

Etro, 2015, Endogenous market structures and international trade: theory and evidence, *Scandinavian Journal of Economics*

***8. Trade policy under oligopoly***

Required:

Brander and Spencer, 1985, Export subsidies and international market share rivalry, JIE

Recommended: Theory

Brander, 1995, Strategic trade policy, chapter 27 in *Handbook of International Economics* III (North-Holland). This reviews early literature on strategic tade policy literature. skim over: <http://strategy.sauder.ubc.ca/brander/papers/Strategic%20Trade%20Policy.pdf>

Creane and Miyagiwa, 2008, Information and disclosure in strategic trade policy, JIE

Etro, 2011, Endogenous market structure and strategic trade policy, IER.

Recommended: Empirical

Bernhofen, 1999, Intra-industry trade and strategic interaction: theory and evidence, JIE

Friberg and Ganslandt, 2006, An empirical assessment of the welfare effects of reciprocal dumping, JIE

**9*. Trade under monopolistic competition***

Required

Krugman, 1980, Scale economies, product differentiation, and the pattern of trade, AER

### Recommended: theory

Neary, 2009, Putting the ‘new’ into new trade theory: Paul Krugman’s Nobel Memorial Prize in economics, *SJE*

Helpman, 1981, International trade in the presence of product differentiation, economies of scale and monopolistic competition: a Chamberlin-Heckscher-Ohlin approach, JIE

Krugmna, 1979, Increasing returns, monopolistic competition, and international trade, JIE

Krugman, 1981, Intraindustry specialization and the gains from trade, JPE

Markusen, 1989, Trade in producer services and in other specialized intermediate inputs, AER

Matsuyama, 1995, Complementarities and cumulative processes in models of monopolistic competition, JEL

Romalis, 2004, Proportions and the structure of commodity trade, AER

Feenstra, 2003, A homothetic utility function for monopolistic competition models without constant price elasticity, EL

Behrens, Murata, 2007, General equilibrium models of monopolistic competition: a new approach, JET

di Comite, Thisse, Vandenbuscche, 2014, Verti-zontal differentiation in export markets, JIE

Zhelobodka, Kokovin, Parenti, and Thisse, 2012, Monopolistic competition: beyond constant elasticity of substitution, ECM

Mrazova and Neary, 2014, Together at last: trade costs, demand structure, and welfare, AER

### Recommended: empirical

di Comite, Thisse, Vandenbuscche, 2014, Verti-zontal differentiation in export markets, JIE

### Helpman, 1987, Imperfect competition and international trade: evidence from fourteen industrial countries, *Journal of the Japanese and International Economics*

Hummel, Levinsohn, 1995, Monopolistic competition and international trade: reconsidering the evidence, QJE

Feenstra, Markusen, 2001, Using the gravity equation to differentiate among alternative theories of trad, CJE

Debaere, 2005, Monopolistic competition and trade, revisited: testing the model without testing for gravity, JIE

Feenstra, Kee, 2008, Export variety and country productivity: estimating the monopolistic competition model with endogenous productivity, JIE

Feenstra, 2010, Measuring the gains from trade under monopolistic competition, CJE

Arkolakis, et al., 2012, New trade models, same old gains, AER

***10. Trade policy under monopolistic competition***

Required:

Feenstra, Judd, 1982, Tariffs, technology transfer, and welfare, JPE

Gros, 1987, A note on the optimal tariff, retaliation, and the welfare loss from tariff wars in a framework with intra-industry trade, JIE

Recommended: Theory

Gros, D., 1987, Protectionism in a framework with intra-industry trade: tariffs, quotas, retaliation, and welfare losses, IMF Staff Papers

Flam and Helpman, 1987, Industrial policy under monopolistic competition JIE

Chang, 2004, Protection for sale under monopolistic competition, JIE

Empirical

Hummel, Levinsohn, 1995, Monopolistic competition and international trade: reconsidering the evidence, QJE

***11. Trade with heterogeneous firms***

Required:

Melitz, 2003, The impact of trade on intra-industry reallocations and aggregate industry productivity, *ECM*

Recommended: theory

Demidova and Rodriguez-Claire, 2013, The simple analytics of the Melitz model in a small economy, JIE

Redding, 2010, Theory of heterogeneous firms and trade, AER

Mayer, Melitz, and Ottaviano, 2014, Market size, competition, and the product mix of exporters, AER

Melitz and Readding, 2014, Heterogeneous firms and trade, in *Handbook of international economics* (Elsevier).

Meltiz and Trefler, 2012, Gains from trade when firms matter, JEP

Qiu and Yu, 2007, International outsourcing and imperfect contract enforcement, *Asia-Pacific Journal of Accounting and Economics*.

Helpman, Itskhoki, and Redding, 2010, Inequality and unemployment in a global economy, *ECM*

Helpman, 2010, Labor market frictions as a source of comparative advantage, with implications for unemployment and inequality, NBER Working Papers 15764

Recommended: empirical

Bernard, Eaton, Jensen, Kortum, 2003, Plants and productivity in international trade AER

Bernard, Jensen, and Reddding, 2007, Firms in international trade, *Journal of Economic Perspectives*

Bernard, Jensen and Schott, 2006, Trade costs, firms and productivity, *Journal of Monetary Economics,*

Baldwin, and Harrigan, 2011, Zeros, quality, and space: trade theory and trade evidence, AEJ: Micro

Eaton, Kortum and Kramarz, 2011, An anatomy of international trade: evidence from the French firms, *ECM*

***12. Trade policy with heterogeneous firms***

Required:

Demidova and Rodriguez-Clare, 2009, Trade policy under firm-level heterogeneity in a small economy, JIE

Felbermayr, Jung, and Larch, 2013, Optimal tariffs, retaliation, and the welfare loss from tariff wars in the Melitz model, JIE

Recommended: theory

Melitz, Ottaviano, 2008, Market size, trade, and productivity, RES

Melitz and Trefler, 2012, Gains from trade when firms matter, *JEP*

Recommended: empirical

Fernandes, 2007, Trade policy, trade volumes and plant-level productivity in Colombian manufacturing industries, JIE

Melitz, and Readding, 2015, New trade models, new welfare implications, AER

***Pat II: Additional topics***

We will discuss some of these topics if time permits

**13. Economic geography**

Required:

Thisse, 2010, Towards a unified theory of economic geography and urban economics, JRS

Recommended: Theory

Ottaviano, Tabuchi and Thisse, 2002, Agglomeration and trade revisited, IER

Tabuchi and Thisse, 2002, Taste heterogeneity, labor mobility and economic geography, JDE

Fujita and Thisse, 2006, Globalization and the evolution of the supply chain: who gains and who loses, IER

Behrens, Gaigne, Ottaviano and Thisse, 2007, Countries, regions and trade: on the welfare impacts of economic integration, EER

Okubo, Picard and Thisse, 2010, The spatial selection of heterogeneous firms, JIE

Ottaviano, 2011, “New” new economic geography: firm heterogeneity and agglomeration, Journal of Economic Geography

Tabuchi, Thisse and Zhu, 2018, Does technological progress magnify regional disparities? IER

Recommended: surveys and reviews

Krugman, 1998, What’s new about the new economic geography? Oxford Review of Economic Policy

Schmultzier, 1999, The new economic geography, *Journal of Economic Surveys*

Neary, 2001, Of hype and hyperbolas: introducing the new economic geography, JEL

Fujita, Krugman, 2005, The new economic geography: past, present and the future, *Fifty years of regional science*

Fujita, 2005, Frontiers of the New Economic Geography, *Fifty years of regional science*

Krugman, 2011, The new economic geography, now middle-aged, *Regional Studies*

Recommended: empirical

Crozet, 2005, Do migrants follow market potentials? An estimation of a new economic geography model, *Journal of Economic Geography*

Redding, 2010, The empirics of new economic geography, JRS

**14. FDI and multinationals**

Required

Helpman, 1983, A simple theory of international trade with multinational corporations, JIE

Markusen, 1984, Multinationals, multi-plant economies, and the gains from trade, JIE

Recommended: theory

Ethier, 1986, The multinational firm, QJE

Markusen, 1995, The boundaries of multinational enterprises and the theory of international trade, JPE

Ethier, Markusen, 1996, Multinational firms, technology diffusion and trade, JIE

Markusen and Venables, 1997, Foreign direct investment as a catalyst for industrial development, EER.

Markusen and Venables, 1998, Multinational firms and the new trade theory, JIE

Markusen, 1998, Multinational firms, location and trade, World Economy

Zhang, Markusen, 1999, vertical multinationals and host-country characteristics, JDE

Markusen, 2001, Contracts, intellectual property rights, and multinational investment in developing countries, JIE

Baldwin and Ottaviano, 2001, Multiproduct multinationals and reciprocal FDI dumping, JIE

Markusen, J. M. 2002, *Multinational firms and the theory of international trade* (MIT Press)

Helpman, Melitz, and Yeaple, 2004, Export versus FDI with heterogeneous firms, AER

Grossman, Helpman and Szeidle, 2006, Optimal integration strategies for the multinational firm, JIE.

Bergstrand, and Egger, 2007, A knowledge-and-physical-capital model of international trade flows, foreign direct investment, and multinational enterprises, JIE,

Chor, 2009, Subsidies for FDI: implications from a model with heterogeneous firms, JIE

Markusen, Tromfimenko, 2009, Teaching locals new tricks: foreign experts as a channel of knowledge transfers, JDE

Ramondo et al., 2012, Proximity-concentration tradeoff under uncertainty, RES

Recommended: empirical

Morck, Yeung, 1992, Internalization: an event study test, JIE

Bernard, 1997, An empirical assessment of the proximity-concentration trade-off between multinational sales and trade, AER

Branstetter, 2006, Is foreign direct investment a channel of knowledge spillovers? Evidence from Japan’s FDI in the United States, JIE

Greenaway and Kneller, 2007, Firm heterogeneity, exporting and foreign direct investment, EJ

Costinot, Oldenski, Rauch, 2011, Adaptation and the boundary of multinational firms, REStat

**15. Immigration**

Recommended: theory

Ethier, 1985, International trade and labor migration, AER

Ethier, 1986, Illegal immigration: the host country problem, AER

Bond, and Chen, 1987, The welfare effects of illegal immigration, *JIE*

Markusen, 1988, Production, trade, and migration with differentiated, skilled workers, CJE

Miyagiwa, 1991, Scale economies in education and the brain drain problem, IER

Yoshida and Woodland, 2005, *The economics of illegal immigration* (Palgrave MacMillan)

Woodland, Yoshida, 2006, Risk preference, illegal immigration and immigration policy, JDE

Liu, X., 2010, On the macroeconomic and welfare effects of illegal immigration, *Journal of Economic Dynamics and Control*

Giordani, Ruta, 2013, Coordination failures in immigration policy, *JIE*

Chassamboulli, Palivos, 2014, A search-equilibrium approach to the effects of immigration on labor market outcomes, *IER*

Battisti, Felbermayr, Poutvaara, 2018, Immigration, search, and redistribution: a quantitative assessment of native welfare, *Journal of the European Economic Association*.

Miyagiwa and Sato, 2018, Illegal immigration and multiple destinations, *Journal of Regional Science*.

Empirical

Hanson, Spilimbergo, 1999, Illegal immigration, border enforcement, and relative wages: evidence from apprehensions at the U.S.-Mexico Border, *AER*

Robertson, 2000, Wage shocks and North American labor-market integration, AER

Hanson, Robertson, Spilimbergo, 2002, Does border enforcement protect U.S. workers from illegal immigration? *REStat*

Hanson, Splimbergo, 2003, Political economy, sectoral shocks, and border enforcement, CJE

Robertson, 2005, Has NAFTA increased labor market integration between the United States and Mexico? World Bank Economic Review

Hanson, 2006, Illegal migration from Mexico to the United States, JEL

Hanson, 2010, International migration and the developing world, *Handbook of development economics* (Elsevier)

***16: Dumping and antidumping policy***

Recommended: theory

Ethier, 1982, Dumping, JPE

Staiger and Wolak, 1992, Strategic use of antidumping law to enforce tacit international collusion, JIE

Gao and Miyagiwa, 2005, Antidumping protection and R&D competition, CJE.

Miyagiwa, Ohno, 2007, Dumping as a signal of innovation, JIE

Miyagiwa, Song, Vandenbussche, 2016, Accounting for stylized facts about recent antidumping: retaliation and innovation, *TWE*

Recommended: empirical:

Friberg and Ganslandt, 2006, An empirical assessment of the welfare effects of reciprocal dumping, JIE

Miyagiwa, Song, Vandenbussche, 2016, Size matters! Who is bashing whom in trade wars?, *International Review of Economics and Finance.*

***17. R&D and trade***

Recommended: theory

Miyagiwa and Ohno, 1995, Closing the technology gap under protection, AER

Miyagiwa and Ohno, 1999, Credibility of protection and incentives to innovate, IER

Atkeson and Burnstein, 2010, Innovation, firm dynamics, and international trade, JPE

Recommended: empirical

Leleeva, 2008, Trade evidence and productivity dynamics: evidence from Canada, CJE

Verhoogen, 2008, Trade, quality upgrading and wage inequality in the Mexican manufacturing sector, QJE

Lileeva and Trefler, 2010, Improved access to foreign market raises plant-level productivity…for some plants, QJE

Aw, Roberts, and Xu, 2011, D&D investment, exporting, and productivity dynamics, AER

Bustons, 2011, Trade liberalization, exports and technology upgrading” evidence on the impact of MERCOSUR on Argentinian firms, AER