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8403 International Trade Spring 2023 Tu, Th 9.15-10.55am

International Trade

Course Outline: This is a second-year graduate class for Econ PhD students, the sequel to 8401 and 8402. The focus is on international trade. Relative to Tim's class (8401), there is some thematic overlap, but we cover different papers, and it will be run more like a reading group, with classes structured around a single paper. The goal of the class is threefold: to build skills in reading and evaluating papers, to give you experience in presenting, and to help get you started on your own research by exposing you to work at the frontier of international trade, and through two "hands on" problem sets.

Textbook: None.

Reading: The list of assigned readings for each class is provided below. The Background Reading section provides a (non-exhaustive) list of supplementary material for different topics.

Assessment: There are five parts to the assessment. (I) You will be broken up into 3 groups, and each group will be assigned to 3 of the papers we will cover. Starting in the third class, the assigned group will prepare and present slides on the reading. Slides should be e-mailed to me before class on the day of the presentation. Your participation in class discussions of the papers (even when you are not presenting) will form part of your grade. (II) Starting in the second class, you are required to prepare a half-page summary of the reading for each class, due by e-mail before class. This is an individual, not a group assignment, and must be done for every class, whether or not your group is presenting the paper. (III) Two hands-on problem sets. These will involve downloading some data, and using it to calibrate a model. You can work on these in groups, but please send me individual responses. (IV) Each group will present a job market paper in trade from last year. As with the other papers, slides for your presentation should be e-mailed to me. Summaries are not required for the JMPs. (V) Each student will write a referee report on their assigned job market paper. These reports are an individual assignment.

Office Hours: If you would like to meet, send me an email (personal gmail above, not UMN or Fed email), and we can arrange a time to meet on Zoom.

Schedule and Assigned Reading

Stars indicate classes where students are/will be assigned to present.

- 1. Tuesday 17th January. Gravity. **Reading:** Arkolakis, Costinot & Rodriguez-Clare (2012).
- 2. Thursday 19th January. Ricardian differences. Reading: Caliendo and Parro (2015).
- 3. *Tuesday 24th January. Increasing returns. **Reading:** Edmond, Midrigan and Xu (2015).
- 4. *Thursday 26th January. Factor differences. Reading: Lee (2020).
- 5. *Tuesday 31st January. Distributional consequences across consumers. **Reading:** Fajgelbaum and Khandelwal (2016).
- 6. *Thursday 2nd February. Distributional consequences & labor market frictions: **Reading:** Helpman, Itskhoki, Muendler and Redding (2017).
- 7. *Tuesday 7th February. Trade, innovation & growth. **Reading:** Perla, Tonetti and Waugh (2021).
- 8. *Thursday 9th February. Economic geography. Reading: Allen & Arkolakis (2014).
- 9. *Tuesday 14th February. Multinationals. Reading: Tintelnot (2017).
- 10. *Thursday 16th February. Shipping costs. **Reading:** Brancaccio, Kalouptsidi and Papageorgiou (2020).
- 11. *Tuesday 21st February. Global value chains. **Reading:** Antras, Fort and Tintelnot (2017).
- 12. *Thursday 23rd February. In-class presentation of job market papers.
- 13. *Tuesday 28th February. In-class presentation of job market papers.
- 14. *Thursday 2nd March. In-class presentation of job market papers.

Assignment due dates

- 1. Sunday 5th February: Problem Set 1 is due
- 2. Sunday 26th February: Problem Set 2 is due
- 3. Sunday 5th March: Referee report is due.

Job market papers

- 1. Mayara Felix, "Trade, Labor Market Concentration, and Wages."
- 2. Mathilde Muñoz, "Trading Non-Tradeables: The Implications of Europe's Job Posting Policy."
- 3. Maria Jose Carreras Valle, "Increasing Inventories: The Role of Delivery Times."
- 4. Lydia Cox, "The Long-Term Impact of Steel Tariffs on U.S. Manufacturing."

Background Reading

1 Gravity and the gains from trade

- 1. Alvarez and Lucas (2007), "General Equilibrium Analysis of the Eaton-Kortum Model of International Trade," JME.
- 2. Anderson and van Wincoop (2003), "Gravity with Gravitas: A Solution to the Border Puzzle," AER
- 3. *Arkolakis, Costinot and Rodriguez Clare (2012), "New Trade Models, Same Old Gains," AER.
- 4. Fitzgerald, D. (2012) "Trade Costs, Asset Market Frictions and Risk Sharing," AER.
- 5. Head, K. and T. Mayer (2014), "Gravity Equations: Workhorse, Toolkit and Cookbook," Handbook of International Economics, Volume 4, (eds Elhanan Helpman, Gita Gopinath and Kenneth Rogoff), Elsevier: North Holland, Chapter 3, 131-195.
- 6. Ossa, R. (2015), "Why Trade Matters After All," JIE.
- 7. Simonovska, I. and M. Waugh (2014), "Trade Models, Trade Elasticities and the Gains from Trade," NBER Working Paper 20495.

2 Ricardian differences

- 1. Bernard, A., J. Eaton, B. Jensen and S. Kortum (2003), "Plants and Productivity in International Trade," AER .
- 2. *Caliendo, L. and F. Parro (2015), "Estimates of the Trade and Welfare Effects of NAFTA," REStud.
- 3. Costinot, A., D. Donaldson and I. Komunjer (2012), "What Goods Do Countries Trade? A Quantitative Exploration of Ricardo's Ideas," REStud.
- 4. Eaton and Kortum (2002), "Technology, Geography and Trade," ECMA.
- 5. Levchenko, A. and J. Zhang (2014), "Ricardian Productivity Differences and the Gains from Trade," EER.
- 6. Lind, N. and N. Ramondo (2022), "Trade With Correlation." AER.

3 Increasing returns

- 1. Arkolakis, C. (2010), "Market Penetration Costs and the New Consumers Margin in International Trade," JPE.
- 2. Atkeson and Burstein (2008), "Pricing-to-Market, Trade Costs, and International Relative Prices" AER.
- 3. Bai, Y., K. Jin and D. Lu (2021), "Misallocation under Trade Liberalization."
- 4. Baldwin, R. and J. Harrigan (2011), "Zeros, Quality and Space: Trade Theory and Trade Evidence," AEJ-Micro.
- 5. Chaney (2008), "Distorted Gravity: Heterogeneous Firms, Market Structure and the Geography of International Trade," AER.
- 6. Eaton, J., S. Kortum and F. Kramarz (2011), "An Anatomy of International Trade: Evidence from French Firms," ECMA.
- 7. *Midrigan, Edmond, and Xu (2015), "Competition, Markups, and the Gains from International Trade," AER.
- 8. Head, K., T. Mayer and M. Thoenig (2014), "Welfare and Trade Without Pareto," AER P&P.
- 9. Helpman, E., M. Melitz and Y. Rubinstein (2008), "Estimating Trade Flows: Trading Partners and Trading Volumes," QJE 123.
- 10. Krugman (1979), "Increasing Returns, Monopolistic Competition, and International Trade," JIE.
- 11. Krugman (1980), "Scale Economies, Product Differentiation, and the Pattern of Trade," AER.
- 12. Melitz (2003), "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity," Econometrica.
- 13. Melitz and Ottaviano (2008), "Market Size, Trade, and Productivity." REStud.
- 14. Melitz, M. and S. Redding (2014), "Heterogeneous Firms and Trade," Handbook of International Economics, Volume 4, (eds Elhanan Helpman, Gita Gopinath and Kenneth Rogoff), Elsevier: North Holland, Chapter 1, 1-54.
- 15. Melitz, M. and S. Redding (2015), "New Trade Models, New Welfare Implications," AER.

4 Different endowments

- 1. Adao, R., A. Costinot and D. Donaldson (2017), "Nonparametric Counterfactual Predictions in Neoclassical Models of International Trade," AER.
- 2. Bernard, Redding, and Schott (2007), "Comparative Advantage and Heterogeneous Firms," Review of Economic Studies, 31-66
- 3. Burstein, Hanson, Tian and Vogel (2020), "Tradability and the Labor-Market Impact of Immigration: Theory and Evidence from the U.S.," Econometrica
- 4. Burstein, A., E. Morales and J. Vogel (2018), "Changes in Between-Group Inequality: Computers, Occupations and International Trade," AEJ-Macro.
- 5. Burstein, A. and J. Vogel (2017), "International Trade, Technology, and the Skill Premium," JPE.
- Costinot, A. and J. Vogel (2010), "Matching and Inequality in the World Economy," JPE 118 (4) 747-786.
- 7. Davis, D. and D. Weinstein (2002), "The Factor Content of Trade," *Handbook of International Trade*, E. Choi and J. Harrigan eds.
- 8. Galle, S., A. Rodriguez-Clare and M. Yi (2022), "Slicing the Pie: Quantifying the Aggregate and Distributional Effects of Trade," REStud.
- 9. *Lee, E. (2020), "Trade, Inequality, and the Endogenous Sorting of Heterogeneous Workers," JIE 125
- 10. Romalis, J., "Factor Proportions and the Structure of Commodity Trade," AER 94 (1), 67-97.

5 Trade and consumer welfare: distributional consequences

- 1. Atkin, D. (2013), "Trade, Tastes and Nutrition in India," AER.
- 2. Atkin, D., B. Faber and M. Gonzalez-Navarro (2018), "Retail Globalization and Household Welfare: Evidence from Mexico," JPE.
- 3. Borusyak, K., and X. Jaravel (2021), "The Distributional Effects of Trade: Theory and Evidence from the United States."
- 4. Broda, C. and D. Weinstein (2006), "Globalization and the Gains from Variety," QJE.
- 5. *Fajgelbaum and Khandelwal (2016), "Measuring the Unequal Gains From Trade," QJE.

6. Feenstra, R. (1994), "New Product Varieties and the Measurement of International Prices," AER.

6 Trade and frictional labor markets: distributional consequences

- 1. Caliendo, L., M. Dvorkin and F. Parro (2018), "Trade and Labor Market Dynamics: General Equilibrium Analysis of the China Trade Shock," ECMA.
- 2. Cosar, K., N. Guner and J. Tybout (2016), "Firm Dynamics, Job Turnover, and Wage Distributions in an Open Economy," AER.
- 3. Dix-Carneiro, R. (2014), "Trade Liberalization and Labor Market Dynamics," ECMA.
- 4. Dix-Carneiro, R. and B. Kovak (2017), "Trade Liberalization and Regional Dynamics," AER.
- 5. Helpman, E. and O. Itskhoki (2010), "Labour Market Rigidities, Trade and Unemployment," REStud.
- 6. Helpman, E., O. Itskhoki and S. Redding (2010), "Inequality and Unemployment in a Global Economy," ECMA.
- 7. *Helpman, E., O. Itskhoki, M. Muendler and S. Redding (2017), "Trade and Inequality: From Theory to Estimation," REStud.
- 8. Fajgelbaum, P. "Labour Market Frictions, Firm Growth and International Trade," REStud 2020.
- 9. Traiberman, S. (2019), "Occupations and Import Competition: Evidence from Denmark," AER.

7 Trade, innovation, and growth

- 1. Akcigit, U., S. Ates and G. Impullitti (2021), "Innovation and Trade Policy in a Globalized World."
- 2. Alvarez, F., F. Buera and R. Lucas (2013), "Idea Flows, Economic Growth, and Trade."
- 3. Atkeson, A. and A. Burstein (2010), "Innovation, Firm Dynamics, and International Trade," JPE.
- 4. Baldwin, R. and F. Robert-Nicoud (2008), "Trade and Growth with Heterogeneous Firms," JIE.

- 5. Buera, F. and E. Oberfield (2019), "The Global Diffusion of Ideas," ECMA.
- 6. Eaton, J. and S. Kortum (2001), "Technology, Trade, and Growth: A Unified Framework," EER.
- 7. Grossman, G. and E. Helpman (1991), Innovation and Growth in the Global Economy, MIT Press.
- 8. Hsieh, C.-T., P. Klenow and I. Nath (2022), "A Global View of Creative Destruction."
- 9. *Perla, J., C. Tonetti and M. Waugh (2021), "Equilibrium Technology Diffusion, Trade, and Growth," AER
- 10. Rivera-Batiz, L. and P. Romer (1991), "Economic Integration and Endogenous Growth," QJE.
- 11. Sampson, T. (2016), "Dynamic Selection: An Idea Flows Theory of Entry, Trade, and Growth," QJE.

8 Economic geography

- 1. Ahlfeldt, G. M., Redding, S. J., Sturm, D. M., & Wolf, N. (2015). The Economics of Density: Evidence from the Berlin Wall. ECMA.
- 2. *Allen, T. and C. Arkolakis (2014), "Trade and the Topography of the Spatial Economy," QJE.
- 3. Donaldson, D. (2018), "Railroads of the Raj: Estimating the Impact of Transportation Infrastructure," AER.
- 4. Donaldson, D. and R. Hornbeck (2016), "Railroads and American Economic Growth: A "Market Access" Approach," QJE
- 5. Davis, D. (1998), "The Home Market, Trade and Industrial Structure," AER.
- 6. Fajgelbaum, P., E. Morales, J.-C. Suarez Serrato and O. Zidar (2018), "State Taxes and Spatial Misallocation," REStud.
- 7. Gaubert, C. (2018), "Firm Sorting and Agglomeration," AER.
- 8. Krugman (1991), "Increasing Returns and Economic Geography," JPE
- 9. Krugman and Venables (1995), "Globalization and the Inequality of Nations," QJE.
- 10. Redding, S. (2011), "Economic Geography: a Review of the Theoretical and Empirical Literature," Chapter 16 in The Palgrave Handbook of International Trade.

- 11. Redding, S. and D. Sturm (2008), "The Costs of Remoteness: Evidence from German Division and Reunification," AER.
- 12. Redding, S. and E. Rossi-Hansberg (2017), "Quantitative Spatial Economics," ARE.

9 Multinationals

- 1. Alfaro-Ureña, I. Manelici and J. Vasquez, (2022), "The Effects of Joining Multinational Supply Chains: New Evidence from Firm-to-Firm Linkages," QJE.
- 2. Alfaro-Ureña, I. Manelici and J. Vasquez, (2021), "The Effects of Multinationals on Workers: Evidence from Costa Rican Microdata."
- 3. Antras, P. and S. Yeaple (2014), "Multinational Firms and the Structure of International Trade," Handbook of International Economics 4.
- 4. Arkolakis, C., N. Ramondo, A. Rodriguez-Clare, and S. Yeaple (2018), "Innovation and Production in the Global Economy." AER.
- 5. Gumpert, A., H. Li, A. Moxnes and F. Tintelnot (2020), "The Life-Cycle Dynamics of Exporters and Multinational Firms." JIE
- 6. Helpman, E., M. Melitz and S. Yeaple (2004), "Export versus FDI with Heterogeneous Firms," AER.
- 7. Ramondo, N. (2014), "A Quantitative Approach to Multinational Production," JIE.
- 8. Ramondo, N. and A. Rodriguez-Clare (2013), "Trade, Multinational Production, and the Gains from Openness," JPE.
- 9. Setzler, B. and F. Tintelnot (2021), "The Effects of Foreign Multinationals on Workers and Firms in the United States," QJE.
- 10. *Tintelnot, F. (2017), "Global Production with Export Platforms," QJE.

10 Transportation costs

- 1. *Brancaccio, G., M. Kalouptsidi and T. Papageorgiou (2020), "Geography, Transportation, and Endogenous Trade Costs," ECMA.
- 2. Brancaccio, G., M. Kalouptsidi and T. Papageorgiou (2022), "Search Frictions and Efficiency in Decentralized Transport Markets," QJE forthcoming.
- 3. Ganapati, S., and W. Wong (2022), "How Far Goods Travel: Global Transport and Supply Chains from 1965-2020."

- 4. Ganapati, S., W. Wong and O. Ziv (2022), "Entrepot: Hubs, Scale, and Trade Costs."
- 5. Heiland, I., A. Moxnes, K. Ulltveit-Moe and Y. Zi (2022), "Trade From Space: Shipping Networks and the Global Implications of Local Shocks."
- 6. Hummels, D. (2007), "Transportation Costs and International Trade in the Second Era of Globalization," JEP.
- 7. Hummels, D. and A. Skiba (2004), "Shipping the Good Apples Out? An Empirical Confirmation of the Alchian-Allen Conjecture," JPE.

11 Global value chains and networks

- 1. Antras, P. and D. Chor (2022), "Global Value Chains," Handbook of International Economics Vol 5.
- 2. Antras, P. and A. de Gortari (2020), "On the Geography of Global Value Chains," Econometrica.
- 3. *Antras, P., T. Fort and F. Tintelnot (2017), "The Margins of Global Sourcing: Theory and Evidence from U.S. Firms," AER.
- 4. Baqaee, D. and E. Farhi (2022), "Networks, Barriers and Trade."
- 5. Bernard, A. and A. Moxnes (2018), "Networks and Trade," ARE.
- 6. Bernard, A., A. Moxnes and Y. Saito (2019), "Production Networks, Geography, and Firm Performance," JPE.
- 7. Blanchard, E., Bown, C. and R. Johnson (2021), "Global Value Chains and Trade Policy."
- 8. Grossman, G. and E. Rossi-Hansberg (2008), "Trading Tasks: A Simple Theory of Offshoring," AER.
- 9. Hummels, D., L. Ishii and K.-M. Yi (2001), "The Nature and Growth of Vertical Specialization in World Trade," JIE.
- 10. Johnson, R. (2018), "Measuring Global Value Chains," ARE.
- 11. Johnson, R. (2012), "Accounting for Intermediates: Production Sharing and Trade in Value Added," JIE.
- 12. Yi, K.-M. (2003), "Can Vertical Specialization Explain the Growth of World Trade?" JPE.
- 13. Yi, K.-M. (2010), "Can Multistage Production Explain the Home Bias in Trade?" AER.

12 Immigration

- 1. Burstein, A., G. Hanson, L. Tian and J. Vogel (2020), "Tradability and the Labor-Market Impact of Immigration: Theory and Evidence from the U.S.," ECMA.
- 2. Colas, M. (2018), "Dynamic Responses to Immigration."
- 3. Caliendo, C., L. Opromolla, F. Parro and A. Sforza (2021), "Goods and Factor Market Integration: A Quantitative Assessment of the EU Enlargement." JPE.
- 4. Monras, J. (2019), "Immigration and Wage Dynamics: Evidence from the Mexican Peso Crisis." JPE.

13 Services trade

- 1. Ding, X., T. Fort, S. Redding and P. Schott (2019), "Structural Change Within Versus Across Firms: Evidence from the United States."
- 2. Eaton, J. and S. Kortum (2019), "Trade in Goods and Trade in Services."
- 3. Eckert, F. (2019), "Growing Apart: Tradable Services and the Fragmentation of the U.S. Economy."
- 4. Eckert, F., S. Ganapati and C. Walsh (2020), "Skilled Scalable Services: The New Urban Bias in Economic Growth."
- 5. Gervais, A. and J. B. Jensen (2019), "The Tradability of Services: Geographic Concentration and Trade Costs," JIE.
- 6. *Hsieh, C.-T. and E. Rossi-Hansberg (2021), "The Industrial Revolution in Services."

14 Dynamic gains from trade

- 1. Alessandria and Choi (2021), "The Dynamics of the U.S. Trade Balance and Real Exchange Rate: The J Curve and Trade Costs?" JIE.
- 2. Eaton, Kortum, Neiman and Romalis (2016), "Trade and the Global Recession," AER.
- 3. Ravikumar, Santacreu and Sposi (2019), "Capital Accumulation and Dynamic Gains from Trade," JIE.
- 4. Reyes-Heroles, R. (2016), "The Role of Trade Costs in the Surge of Trade Imbalances."

15 China shock

- 1. Autor, Dorn and Hanson (2013), "The China Syndrome: Local Labor Market Effects of Import Competition in the United States," AER.
- 2. Caliendo, L., M. Dvorkin and F. Parro (2018), "Trade and Labor Market Dynamics: General Equilibrium Analysis of the China Trade Shock," ECMA.
- 3. Ferriere, A., G. Navarro and R. Reyes-Heroles (2020), "Escaping the Losses from Trade: The Impact of Heterogeneity on Skill Acquisition."
- 4. Fort, T., J. Pierce and P. Schott (2018), "New Perspectives on the Decline of U.S. Manufacturing Employment," JEP.
- 5. Jaravel, X. and E. Sager (2019), "What are the Price Effects of Trade? Evidence from the U.S. and Implications for Quantitative Trade Models."
- 6. Lyon, S. and M. Waugh (2019), "Quantifying the Losses from International Trade."
- 7. Pierce, J. and P. Schott (2016), "The Surprisingly Swift Decline of U.S. Manufacturing Employment," AER.

16 Trump trade war

- 1. Amiti, M., S. Redding and D. Weinstein (2019), "The Impact of the 2018 Trade War on U.S. Prices and Welfare," JEP.
- 2. Amiti, M., S. Redding and D. Weinstein (2019), "Who's Paying for the U.S. Tariffs? A Longer Term Perspective."
- 3. Cavallo, A., G. Gopinath, B. Neiman and J. Tang (2019), "Tariff Passthrough at the Border and at the Store: Evidence from U.S. Trade Policy."
- 4. Fajgelbaum, P., P. Goldberg, P. Kennedy and A. Khandelwal (2020), "The Return to Protectionism," QJE.
- 5. Flaaen, A., A. Hortacsu and F. Tintelnot (2020), "The Production Relocation and Price Effects of U.S. Trade Policy: The Case of Washing Machines."