

Topics in Trade and Spatial Economics

Johannes Boehm, University of Geneva

Fall Semester 2026

Lectures:

- every week Mondays 10:15 – 12:00 in M5342 (Uni Mail)
- occasionally (substitute slot) Wednesdays 16:15 – 18:00 in Uni Pignon P_S05

Objectives:

The objective of this research-level course is to bring students to the frontier of theoretical and empirical work on trade, spatial economics, and adjacent topics, and to explore topics that are of interest to the course participants.

Course Description:

The first part of the course blends the stylized empirical facts about firms and trade patterns with core theoretical and quantitative frameworks that the literature uses and that students can build on for their own research. This part covers Ricardian models, selection and firm heterogeneity, competition and endogenous markups, production networks, and models of diffusion.

The second part of the course discusses topics, both on questions that are at the core of international trade and spatial economics, but also some that extend into adjacent fields including development/growth, environmental economics, and economic history. Students that consider applying the tools of trade/spatial economics to do quantitative work in different fields are welcome to take this course as well.

Prerequisites:

Students are expected to have taken core graduate-level macroeconomics, microeconomics, and econometrics courses, as well as mathematics (real analysis, probability theory, statistics). Prior knowledge of international trade or spatial economics is helpful, but not necessary.

Assessment Method:

One final exam (in the last week), which accounts for 50% of the final grade, and one presentation of a research paper, which accounts for the other 50%. Students are free to choose a paper from the list of optional readings below, or can propose another paper (upon confirmation with me).

Bibliography:

Mandatory readings are denoted by “**”

Part I: Core

1. Firm Heterogeneity and Trade

*Melitz, Marc J. "The impact of trade on intra-industry reallocations and aggregate industry productivity." *Econometrica* 71, no. 6 (2003): 1695-1725.

Bernard, Andrew, B., J. Bradford Jensen, Stephen J. Redding, and Peter K. Schott. 2007. "Firms in International Trade." *Journal of Economic Perspectives*, 21 (3): 105–130.

Bustos, Paula. "Trade liberalization, exports, and technology upgrading: Evidence on the impact of MERCOSUR on Argentinian firms." *American economic review* 101, no. 1 (2011): 304-340.

Chaney, Thomas. "Distorted gravity: heterogeneous firms, market structure, and the geography of international trade." *American Economic Review* 98, no. 4 (2008): 1707-1721.

2. Ricardian Trade and Structural Gravity

*Eaton, Jonathan, and Samuel Kortum. "Technology, geography, and trade." *Econometrica* 70, no. 5 (2002): 1741-1779.

Costinot, Arnaud, Dave Donaldson, and Ivana Komunjer. "What goods do countries trade? A quantitative exploration of Ricardo's ideas." *The Review of economic studies* 79, no. 2 (2012): 581-608.

Alvarez, F., and R. Lucas. "General Equilibrium Analysis of the Eaton-Kortum Model of International Trade." *Journal of Monetary Economics* 54, no. 6 (2007): 1726–68.

Lind, Nelson, and Natalia Ramondo. "Trade with correlation." *American Economic Review* 113, no. 2 (2023): 317-353.

Kleinman, Benny, Ernest Liu, Stephen Redding, David Xu. "International Trade in an Uncertain World". Working paper.

https://www.dropbox.com/scl/fi/en7hyikpnisz8gdesb16p/ITUW_Paper.pdf?rlkey=j2hqcfk0b5zj47bsbplekdv2v&e=2&dl=0

3. Welfare

*Arkolakis, Costas, Arnaud Costinot, and Andrés Rodríguez-Clare. "New trade models, same old gains?." *American Economic Review* 102, no. 1 (2012): 94-130.

*Dekle, Robert, Jonathan Eaton, and Samuel Kortum. "Unbalanced trade." *American Economic Review* 97, no. 2 (2007): 351-355.

Costinot, Arnaud, and Andrés Rodríguez-Clare. "Trade theory with numbers: Quantifying the consequences of globalization." In *Handbook of international economics*, vol. 4, pp. 197-261. Elsevier, 2014.

Bartelme, Dominick, Arnaud Costinot, Dave Donaldson, and Andres Rodriguez-Clare. "The Textbook Case for Industrial Policy: Theory Meets Data", *Journal of Political Economy*, May 2025.

4. Competition and Markups

*Atkeson, Andrew, and Ariel Burstein. "Pricing-to-market, trade costs, and international relative prices." *American Economic Review* 98, no. 5 (2008): 1998-2031.

Edmond, Chris, Virgiliu Midrigan, and Daniel Yi Xu. "Competition, markups, and the gains from international trade." *American Economic Review* 105, no. 10 (2015): 3183-3221.

Bernard, Andrew B., Jonathan Eaton, J. Bradford Jensen, and Samuel Kortum. "Plants and productivity in international trade." *American economic review* 93, no. 4 (2003): 1268-1290.

Melitz, Marc J., and Gianmarco IP Ottaviano. "Market size, trade, and productivity." *The review of economic studies* 75, no. 1 (2008): 295-316.

Arkolakis, Costas, Arnaud Costinot, Dave Donaldson, and Andrés Rodríguez-Clare. "The elusive pro-competitive effects of trade." *The Review of Economic Studies* 86, no. 1 (2019): 46-80.

*De Loecker, Jan, and Frederic Warzynski. "Markups and firm-level export status." *American economic review* 102, no. 6 (2012): 2437-2471.

De Loecker, Jan, Pinelopi K. Goldberg, Amit K. Khandelwal, and Nina Pavcnik. "Prices, markups, and trade reform." *Econometrica* 84, no. 2 (2016): 445-510.

Argente, David, Esteban Mendez, and Diana Van Patten, "De Minimis as a Constraint on Local Retail Market Power". Working paper.

5. Production Networks

*Caliendo, Lorenzo, and Fernando Parro. "Estimates of the Trade and Welfare Effects of NAFTA." *The Review of Economic Studies* 82, no. 1 (2015): 1-44.

*Oberfield, Ezra. "A theory of input-output architecture." *Econometrica* 86, no. 2 (2018): 559-589.

*Eaton, Jonathan, Samuel S. Kortum, and Francis Kramarz. "Firm-to-firm trade: Imports, exports, and the labor market." Forthcoming, *Econometrica*.

https://campuspress.yale.edu/samueltkortum/files/2026/04/EKKII_manuscript.pdf

Boehm, Johannes, and Ezra Oberfield. "Misallocation in the Market for Inputs: Enforcement and the Organization of Production." *The Quarterly Journal of Economics* 135, no. 4 (2020): 2007-2058.

Boehm, Johannes, Ruairidh South, Ezra Oberfield, and Mazhar Waseem. "The Network Origins of Firm Dynamics: Contracting Frictions and Dynamism with Long-Term Relationships." (2024). Working paper. <https://jmboehm.github.io/NetworkDynamics.pdf>

Chaney, Thomas. "The network structure of international trade." *American Economic Review* 104, no. 11 (2014): 3600-3634.

Kopytov, A., Mishra, B., Nimark, K. and Taschereau-Dumouchel, M. (2024), "Endogenous Production Networks Under Supply Chain Uncertainty." *Econometrica*, 92: 1621-1659.

Korovkin, Vasily, Alexey Makarin, and Yuhei Miyauchi. "Supply chain disruption and reorganization: Theory and evidence from ukraine's war." *Review of Economic Studies* (2025).

Balboni, Clare, Johannes Boehm, and Mazhar Waseem. "Firm adaptation and production networks: Evidence from extreme weather events in Pakistan." (2026). Forthcoming, *American Economic Review*. https://jmboehm.github.io/Pakistan_Floods.pdf

6. Growth, Diffusion, and Dynamics

*Buera, Francisco J., and Ezra Oberfield. "The global diffusion of ideas." *Econometrica* 88, no. 1 (2020): 83-114.

*Boehm, Johannes, Ruairidh South, Ezra Oberfield, and Mazhar Waseem. "The Network Origins of Firm Dynamics: Contracting Frictions and Dynamism with Long-Term Relationships." (2024). Working paper. <https://jmboehm.github.io/NetworkDynamics.pdf>

*Kortum, Samuel, and Bernardo Ribeiro. "Growth with Firm-to-Firm Trade". Working paper, Yale. <https://campuspress.yale.edu/samueltkortum/files/2025/09/d2459.pdf>

Caliendo, Lorenzo, Maximiliano Dvorkin, and Fernando Parro. "Trade and labor market dynamics: General equilibrium analysis of the china trade shock." *Econometrica* 87, no. 3 (2019): 741-835.

Chen, Junyuan, Carlos Góes, Marc-Andreas Muendler, and Fabian Trottner. "Dynamic Adjustment to Trade Shocks." (2026). <https://trottner.me/files/tradeadj.pdf>

Boehm, Christoph, Andrei A. Levchenko, Nitya Pandalai-Nayar, and Hiroshi Toma. Dynamic Models, New Gains from Trade?. No. w32565. National Bureau of Economic Research, 2024. <https://www.nber.org/papers/w32565>

Allen, T. and Donaldson, D., 2020. Persistence and path dependence in the spatial economy. https://dave-donaldson.com/wp-content/uploads/Path_Dependence.pdf

Kleinman, Benny, Ernest Liu, and Stephen J. Redding. "Dynamic spatial general equilibrium." *Econometrica* 91, no. 2 (2023): 385-424.

Part II: Topics

Note that we will only cover some of the following topics (to be discussed and finalized at the start of term). This list may be expanded.

Transportation

*Allen, Treb, and Costas Arkolakis. "The welfare effects of transportation infrastructure improvements." *The Review of Economic Studies* 89, no. 6 (2022): 2911-2957.

Donaldson, Dave. "Railroads of the Raj: Estimating the impact of transportation infrastructure." *American Economic Review* 108, no. 4-5 (2018): 899-934.

Donaldson, Dave, and Richard Hornbeck. "Railroads and American economic growth: A "market access" approach." *The Quarterly Journal of Economics* 131, no. 2 (2016): 799-858.

Faber, Benjamin. "Trade integration, market size, and industrialization: evidence from China's National Trunk Highway System." *Review of Economic Studies* 81, no. 3 (2014): 1046-1070.

Fajgelbaum, Pablo D., and Edouard Schaal. "Optimal transport networks in spatial equilibrium." *Econometrica* 88, no. 4 (2020): 1411-1452.

Kreindler, Gabriel, Arya Gaduh, Tilman Graff, Rema Hanna, and Benjamin A. Olken. *Optimal Public Transportation Networks: Evidence from the World's Largest Bus Rapid Transit System in Jakarta*. No. w31369. National Bureau of Economic Research, 2023.

Bordeu, Olivia. "Commuting Infrastructure in Fragmented Cities", Working paper
https://www.olviabordeu.com/papers/fragmented_cities_obordeu.pdf

Scale Economies and Industrial Policy

Bartelme, Dominick, Arnaud Costinot, Dave Donaldson, and Andres Rodriguez-Clare. "The textbook case for industrial policy: Theory meets data." *Journal of Political Economy* 133, no. 5 (2025): 1527-1573.

Juhász, Réka. "Temporary protection and technology adoption: Evidence from the napoleonic blockade." *American Economic Review* 108, no. 11 (2018): 3339-3376.

Boehm, Johannes, and Ezra Oberfield. "Growth and the Fragmentation of Production." Working paper.
<https://jmboehm.github.io/IndiaGrowth.pdf>

Institutions, Contracts, and Trade

Antràs, Pol. "Firms, contracts, and trade structure." *The Quarterly Journal of Economics* 118, no. 4 (2003): 1375-1418.

Antràs, Pol. "Incomplete contracts and the product cycle." *American economic review* 95, no. 4 (2005): 1054-1073.

Nunn, Nathan. "Relationship-specificity, incomplete contracts, and the pattern of trade." *The quarterly journal of economics* 122, no. 2 (2007): 569-600.

Levchenko, Andrei A. "Institutional quality and international trade." *The Review of Economic Studies* 74, no. 3 (2007): 791-819.

Boehm, Johannes. "The impact of contract enforcement costs on value chains and aggregate productivity." *Review of Economics and Statistics* 104, no. 1 (2022): 34-50.

Boehm, Johannes, and Ezra Oberfield. "Misallocation in the Market for Inputs: Enforcement and the Organization of Production." *The Quarterly Journal of Economics* 135, no. 4 (2020): 2007-2058.

Boehm, Johannes, Ruairidh South, Ezra Oberfield, and Mazhar Waseem. "The Network Origins of Firm Dynamics: Contracting Frictions and Dynamism with Long-Term Relationships." (2024). Working paper.

Chor, Davin, and Lin Ma. "The Aggregate Welfare and Trade Implications of Contracting Frictions in Global Sourcing." Working paper, January 2026

<https://drive.google.com/file/d/1DCZv0tC7E8TwRWewPBYbPle3WhssUsEg/view?usp=sharing>

Startz, Meredith. "The value of face-to-face: Search and contracting problems in Nigerian trade." *Working paper*. https://drive.google.com/file/d/1CBBGmqQ-VmYNTsdOUbEF9hQlYBuFVml-/view?usp=drive_link

History

Barjamovic, Gojko, Thomas Chaney, Kerem Coşar, and Ali Hortaçsu. "Trade, merchants, and the lost cities of the bronze age." *The Quarterly Journal of Economics* 134, no. 3 (2019): 1455-1503.

Boehm, Johannes, and Thomas Chaney. "Trade and the End of Antiquity." Forthcoming, *Econometrica*. <https://jmboehm.github.io/coins.pdf>

Donaldson, Dave, and Richard Hornbeck. "Railroads and American economic growth: A "market access" approach." *The Quarterly Journal of Economics* 131, no. 2 (2016): 799-858.

Juhász, Réka. "Temporary protection and technology adoption: Evidence from the napoleonic blockade." *American Economic Review* 108, no. 11 (2018): 3339-3376.

Pascali, Luigi. "The wind of change: Maritime technology, trade, and economic development." *American Economic Review* 107, no. 9 (2017): 2821-2854.

Flückiger, Matthias, Erik Hornung, Mario Larch, Markus Ludwig, and Allard Mees. "Roman transport network connectivity and economic integration." *The Review of Economic Studies* 89, no. 2 (2022): 774-810.

Flückiger, Matthias, Mario Larch, Markus Ludwig, and Luigi Pascali. "The Dawn of Civilization Metal Trade and the Rise of Hierarchy." Forthcoming, *American Economic Review* (2025).

Fernández-Villaverde, Jesús, Mark Koyama, Youhong Lin, and Tuan-Hwee Sng. "The fractured-land hypothesis." *The Quarterly Journal of Economics* 138, no. 2 (2023): 1173-1231.

Boehm, Johannes. "Trade and the Origins of the Territorial State," Working paper, 2026

Environment

Balboni, Clare. "In harm's way? Infrastructure investments and the persistence of coastal cities." *American Economic Review* 115, no. 1 (2025): 77-116.

Shapiro, Joseph S. "Trade costs, CO2, and the environment." *American Economic Journal: Economic Policy* 8, no. 4 (2016): 220-254.

Shapiro, Joseph S., "Institutions, Comparative Advantage, and the Environment", Working paper, https://joseph-s-shapiro.com/research/institutions_comparativeAdvantage_environment.pdf

Bilal, Adrien, and Esteban Rossi-Hansberg. *Anticipating climate change across the United States*. No. w31323. National Bureau of Economic Research, 2023.

Cruz, José-Luis, and Esteban Rossi-Hansberg. "The economic geography of global warming." *Review of Economic Studies* 91, no. 2 (2024): 899-939.

Balboni, Clare, Aaron Berman, Johannes Boehm, Lorenzo Marzano, and Mazhar Waseem. "Clearing the Air on the Benefits and Costs of Road Infrastructure". Working paper.

Multi-Product Firms

Bernard, Andrew B., Stephen J. Redding, and Peter K. Schott. "Multiple-product firms and product switching." *American economic review* 100, no. 1 (2010): 70-97.

Eckel, Carsten, and J. Peter Neary. "Multi-product firms and flexible manufacturing in the global economy." *The Review of Economic Studies* 77, no. 1 (2010): 188-217.

Goldberg, Pinelopi Koujianou, Amit Kumar Khandelwal, Nina Pavcnik, and Petia Topalova. "Imported intermediate inputs and domestic product growth: Evidence from India." *The Quarterly journal of economics* 125, no. 4 (2010): 1727-1767.

De Loecker, Jan, Pinelopi K. Goldberg, Amit K. Khandelwal, and Nina Pavcnik. "Prices, markups, and trade reform." *Econometrica* 84, no. 2 (2016): 445-510.

Boehm, Johannes, Swati Dhingra, and John Morrow. "The comparative advantage of firms." *Journal of Political Economy* 130, no. 12 (2022): 3025-3100.

Trade and Labor Markets

Autor, David H., David Dorn, and Gordon H. Hanson. "The China syndrome: Local labor market effects of import competition in the United States." *American Economic Review* 103, no. 6 (2013): 2121-2168.

Pierce, Justin R., and Peter K. Schott. "The surprisingly swift decline of US manufacturing employment." *American Economic Review* 106, no. 7 (2016): 1632-1662.

Helpman, Elhanan, Oleg Itskhoki, and Stephen Redding. "Inequality and unemployment in a global economy." *Econometrica* 78, no. 4 (2010): 1239-1283.

Bloom, Nicholas, Mirko Draca, and John Van Reenen. "Trade induced technical change? The impact of Chinese imports on innovation, IT and productivity." *The review of economic studies* 83, no. 1 (2016): 87-117.

Dix-Carneiro, Rafael. "Trade liberalization and labor market dynamics." *Econometrica* 82, no. 3 (2014): 825-885.

Dix-Carneiro, Rafael, and Brian K. Kovak. "Trade liberalization and regional dynamics." *American Economic Review* 107, no. 10 (2017): 2908-2946.

Dix-Carneiro, Rafael, João Paulo Pessoa, Ricardo Reyes-Heroles, and Sharon Traiberman. "Globalization, trade imbalances, and labor market adjustment." *The Quarterly Journal of Economics* 138, no. 2 (2023): 1109-1171.

Trade Policy

Ossa, Ralph. "A "new trade" theory of GATT/WTO negotiations." *Journal of Political Economy* 119, no. 1 (2011): 122-152.

Ossa, Ralph. "Trade wars and trade talks with data." *American Economic Review* 104, no. 12 (2014): 4104-4146.

Bagwell, Kyle, Robert W. Staiger, and Ali Yurukoglu. "Quantitative analysis of multiparty tariff negotiations." *Econometrica* 89, no. 4 (2021): 1595-1631.

Fajgelbaum, Pablo D., Pinelopi K. Goldberg, Patrick J. Kennedy, and Amit K. Khandelwal. "The return to protectionism." *The Quarterly Journal of Economics* 135, no. 1 (2020): 1-55.

Amiti, Mary, Stephen J. Redding, and David E. Weinstein. "The impact of the 2018 tariffs on prices and welfare." *Journal of Economic Perspectives* 33, no. 4 (2019): 187-210.

Urban/Spatial Economics

Gaubert, Cecile. "Firm sorting and agglomeration." *American Economic Review* 108, no. 11 (2018): 3117-3153.

Ahlfeldt, Gabriel M., Stephen J. Redding, Daniel M. Sturm, and Nikolaus Wolf. "The economics of density: Evidence from the Berlin Wall." *Econometrica* 83, no. 6 (2015): 2127-2189.

Allen, Treb, and Costas Arkolakis. "Trade and the Topography of the Spatial Economy." *The Quarterly Journal of Economics* 129, no. 3 (2014): 1085-1140.

Tsivanidis, Nick. "Evaluating the impact of urban transit infrastructure: Evidence from Bogota's Transmilenio." *University of California, Berkeley* (2023).

https://static1.squarespace.com/static/55bb98e2e4b0ba843f39599e/t/64c98e1aa0fcf82d1bda8d52/1690930717404/TsivanidisTransMillenio_8.2023.pdf

Allen, Treb, "The Topography of Nations", Working paper:

<https://dl.dropboxusercontent.com/s/96ktlosjcaotwm6/Allen%20-%20Topography%20of%20Nations.pdf>

Multinational Production

Helpman, Elhanan, Marc J. Melitz, and Stephen R. Yeaple. "Export versus FDI with heterogeneous firms." *American economic review* 94, no. 1 (2004): 300-316.

Ramondo, Natalia, and Andrés Rodríguez-Clare. "Trade, multinational production, and the gains from openness." *Journal of Political Economy* 121, no. 2 (2013): 273-322.

Tintelnot, Felix. "Global production with export platforms." *The Quarterly Journal of Economics* 132, no. 1 (2017): 157-209.