

# Recent Advances in International Trade

Summer 2020

This version: April 7, 2020

## Important Notice

Due to the Covid-19 outbreak, this lecture and its tutorials will take place online until further notice. Dates and times of the lecture will remain as indicated below. After you have registered for this course, you will be able to access all further information concerning the particulars of online teaching in this course through the JGU Reader ([reader.uni-mainz.de](mailto:reader.uni-mainz.de)).

## Organization

**Lectures:** Monday, 08.30-10.00 am, room 00 141 P2  
first session: April 20

**Tutorials:** Tuesday, 8.30-10.00 am, room 00 141 P2  
first session: April 21

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## Course Description

In this course, you will be introduced to two important lines of research in international trade that have developed over the past 15 years.

First, with the appearance of firm-level data sets in the mid-90s, researchers noticed that only a small fraction of firms - the largest and most productive ones - participate in international markets through exports. Extending the Krugman (1980) model to allow for firms with heterogeneous productivity, the seminal contribution by Melitz (2003) started an active and innovative literature in which empirical and theoretical work are strongly linked.

Second, Eaton and Kortum (2002) developed a Ricardian model of trade with many goods and many countries that has enabled researchers to analyze trade patterns, complex interactions between countries and welfare effects of globalization in a tractable framework. Models based on this seminal contribution are easily matched to sectoral or country-level trade data and are used today in policy analysis, for example for quantifying the effects of Brexit.

This course is designed to provide you with the technical skills to be able to read and understand current research in international trade that is based on either of the two main papers. The focus is therefore on the analytical derivations of the main results of the Melitz (2003) and Eaton and Kortum (2002) models. In addition, the course covers empirical evidence on the roles of firm heterogeneity and the gravity equation in explaining international trade flows.

## Course requirements

Working knowledge of calculus is required and previous contact with trade theory is highly recommended. In particular, knowledge of the Dornbusch, Fischer and Samuelson (1977) and Krugman (1980) models is required.

## Literature

These three **review articles** provide excellent introductions to their respective topics.

- Eaton J. and S. Kortum (2012). “Putting Ricardo to Work.” *Journal of Economic Perspectives*, 26(2), pp. 65-90.
- Melitz, M. J. and S. J. Redding (2014). “Heterogeneous Firms and Trade” In: *Handbook of International Economics*, Vol. 4, ed. Gopinath, G., Helpman, E. and Rogoff K., Elsevier, pp. 1-54.
- Head, K. and T. Mayer (2014). “Gravity Equations: Workhorse, Toolkit, and Cookbook.” In: *Handbook of International Economics*, Vol. 4, ed. Gopinath, G., Helpman, E. and Rogoff K., Elsevier, pp. 131-195.

The following papers are covered in class.

### Recap:

- Krugman P. (1980). “Scale Economies, Product Differentiation, and the Pattern of Trade.” *American Economic Review* 70(5), pp. 950-959.

### Core papers:

- Eaton, J. and S. Kortum (2002). “Technology, Geography, and Trade.” *Econometrica* 70, pp. 1741-1779.
- Melitz, M. J. (2003). “The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity.” *Econometrica* 71, pp. 1695-1725.

Non-exhaustive list of **other papers** I cite or refer to in the course of the lecture:

- Anderson, James E. and E. van Wincoop (2003). “Gravity with Gravitas: A Solution to the Border Puzzle.” *American Economic Review* 93(1), pp. 170-192.
- Arkolakis, C., A. Costinot and A. Rodríguez-Clare (2012). “New Trade Models, Same Old Gains?” *American Economic Review* 102(1), pp. 94-130.
- Bernard, A. B., J. Eaton, J. B. Jensen, and S. Kortum (2003). “Plants and Productivity in International Trade.” *American Economic Review* 93(4), pp. 1268-1290.
- Bernard, A. B., J. B. Jensen, S. J. Redding and P. K. Schott. “Firms in International Trade.” *Journal of Economic Perspectives* 21(3), pp. 105-130.
- Caliendo, L. and F. Parro (2015). “Estimates of the Trade and Welfare Effects of NAFTA.” *Review of Economic Studies* 82, pp. 1-44.
- Chaney, T. (2008). “Distorted Gravity: The Intensive and Extensive Margins of International Trade.” *American Economic Review* 98(4), pp. 1707-1721.

- Mayer T. and G. I. P. Ottaviano (2007). “The Happy Few: New Facts on the Internationalisation of European Firms.” Bruegel-CEPR EFIM2007 Report, Bruegel Blueprint Series.
- Melitz, M. J. and G. I. P. Ottaviano (2008). “Market Size, Trade, and Productivity.” *Review of Economic Studies* 75, pp. 295-316.