# Recent Advances in International Trade

## Summer 2018

[Note: this syllabus is subject to refinements and minor changes.]

### Organization

**Lectures:** Wednesday, 10-12 am, room tba

**Tutorials:** Thursday, 8-10 am, room tba

Instructor: Philipp Herkenhoff, philipp.herkenhoff@uni-mainz.de

## 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 helpful.

### Literature

These two handbook chapters provide excellent introductions to their respective topics.

- 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:

- Dornbusch, R., S. Fischer and P. A. Samuelson (1977). "Comparative Advantage, Trade, and Payments in a Ricardian Model with a Continuum of Goods." American Economic Review 67(5), pp. 823-839.
- 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.
- Melitz, M. J. and G. I. P. Ottaviano (2008). "Market Size, Trade, and Productivity." Review of Economic Studies 75, pp. 295-316.

Non-exhaustive list of **other papers** we will refer to (or cover depending on time):

- 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.
- Dhingra, S., H. Huang, G. I. P. Ottaviano, J. P. Pessoa, T. Sampson and J. van Reenen (2017). "The Costs and Benefits of Leaving the EU: Trade Effects." Economic Policy 32, pp. 651-705.

• 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.